

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549**

**FORM 10-K**

**ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

**For the fiscal year ended December 31, 2011.**

**OR**

**TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

**For the transition period from \_\_\_\_\_ to \_\_\_\_\_.**

**Commission File Number 1-32639**

**MANHATTAN PHARMACEUTICALS, INC.**  
**(Exact name of registrant as specified in its charter)**

**Delaware**

(State or other jurisdiction of  
incorporation or organization)

**36-3898269**

(I.R.S. Employer  
Identification No.)

**787 Seventh Avenue  
New York, New York**

(Address of principal executive offices)

**10019**

(Zip Code)

**Registrant's telephone number, including area code: (212) 554-4484**

**Securities registered pursuant to Section 12(b) of the Act:**

Common Stock, Par Value \$0.001 Per Share  
(Title of Class)

OTC Bulletin Board  
(Name of Each Exchange on Which Registered)

**Securities registered pursuant to Section 12(g) of the Act:**

None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes  No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.

Yes  No

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes  No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes  No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See definitions of "large accelerated filer," "accelerated filer," and "smaller reporting company" in Rule 12b-2 of the Exchange Act). (Check one):

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes  No

The aggregate market value of voting common stock held by non-affiliates of the registrant (assuming, for purposes of this calculation, without conceding, that all executive officers and directors are "affiliates") was \$619,416 as of June 30, 2011, based on the closing sale price of such stock as reported on the OTC Bulletin Board.

There were 284,683,977 shares of the registrant's common stock outstanding as of March 1, 2012.

**DOCUMENTS INCORPORATED BY REFERENCE**

Portions of the registrant's Proxy Statement for the 2012 Annual Meeting of Stockholders are incorporated by reference in Part III of this Annual Report on Form 10-K.

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**MANHATTAN PHARMACEUTICALS, INC.**  
**ANNUAL REPORT ON FORM 10-K**  
**FOR THE FISCAL YEAR ENDED DECEMBER 31, 2011**

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This Annual Report on Form 10-K contains trademarks and trade names of Manhattan Pharmaceuticals, Inc., including our name and logo. All other trademarks, service marks, or trade names referenced in this Annual Report on Form 10-K are the property of their respective owners.

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## SPECIAL CAUTIONARY NOTICE REGARDING FORWARD-LOOKING STATEMENTS

Certain matters discussed in this report, including matters discussed under the caption “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” may constitute forward-looking statements for purposes of the Securities Act of 1933, as amended, or the Securities Act, and the Securities Exchange Act of 1934, as amended, or the Exchange Act, and involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from the future results, performance or achievements expressed or implied by such forward-looking statements. The words "anticipate," "believe," "estimate," "may," "expect" and similar expressions are generally intended to identify forward-looking statements. Our actual results may differ materially from the results anticipated in these forward-looking statements due to a variety of factors, including, without limitation, those discussed under the captions “Risk Factors,” “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and elsewhere in this report, as well as other factors which may be identified from time to time in our other filings with the Securities and Exchange Commission, or the SEC, or in the documents where such forward-looking statements appear. All written or oral forward-looking statements attributable to us are expressly qualified in their entirety by these cautionary statements. Such forward-looking statements include, but are not limited to, statements about our:

- expectations for increases or decreases in expenses;
- expectations for the clinical and pre-clinical development, manufacturing, regulatory approval, and commercialization of our pharmaceutical product candidates or any other products we may acquire or in-license;
- our use of clinical research centers and other contractors;
- expectations for incurring capital expenditures to expand our research and development and manufacturing capabilities;
- expectations for generating revenue or becoming profitable on a sustained basis;
- expectations or ability to enter into marketing and other partnership agreements;
- expectations or ability to enter into product acquisition and in-licensing transactions;
- expectations or ability to build our own commercial infrastructure to manufacture, market and sell our drug candidates;
- acceptance of our products by doctors, patients or payors;
- our ability to compete against other companies and research institutions
- our ability to secure adequate protection for our intellectual property;
- our ability to attract and retain key personnel;
- availability of reimbursement for our products;
- estimates of the sufficiency of our existing cash and cash equivalents and investments to finance our operating requirements, including expectations regarding the value and liquidity of our investments;
- the volatility of our stock price;
- expected losses; and
- expectations for future capital requirements.

The forward-looking statements contained in this report reflect our views and assumptions only as of the date this report is signed. Except as required by law, we assume no responsibility for updating any forward-looking statements.

We qualify all of our forward-looking statements by these cautionary statements. In addition, with respect to all of our forward-looking statements, we claim the protection of the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995.

## **PART I**

*Unless the context requires otherwise, references in this report to “Manhattan,” “Company,” “we,” “us” and “our” refer to Manhattan Pharmaceuticals, Inc. and our subsidiaries.*

### **ITEM 1. BUSINESS.**

#### **OVERVIEW**

We are a biopharmaceutical company focused on the acquisition, development and commercialization of innovative and medically important pharmaceutical products for the treatment of cancer and other underserved therapeutic needs. We aim to acquire rights to these technologies by licensing or otherwise acquiring an ownership interest, funding their research and development and eventually out-licensing or bringing the technologies to market. Currently we are developing ublituximab (TGTX-1101), a novel, third generation monoclonal antibody that targets a specific and unique epitope on the CD20 antigen found on mature B-lymphocytes.

Developed for the treatment of B-cell proliferative disorders, including Non-Hodgkin’s Lymphoma (“NHL”) and Chronic Lymphocytic Leukemia (“CLL”), anti-CD20 antibodies target and aid in the depletion of B-cell lymphocytes. Anti-CD20 antibodies have also been shown to be effective in treating select autoimmune diseases such as Rheumatoid Arthritis (“RA”) and Systemic Lupus Erythematosus (“SLE”), along with the neurological disorder Multiple Sclerosis (“MS”).

TGTX-1101 has demonstrated both safety and preliminary clinical efficacy in a recently completed Phase I clinical trial in relapsed and refractory patients with Chronic Lymphocytic Leukemia (“CLL”).

Our portfolio of product candidates is summarized below:

- TGTX-1101 (ublituximab), an anti-CD20 monoclonal antibody for oncology and B-cell related disorders
- AST-726, a nasally delivered form of hydroxocobalamin for the treatment of vitamin B<sub>12</sub> deficiency

The Company has discontinued development of the topical GEL for the treatment of mild psoriasis.

We also actively engage in business development activities that include seeking strategic relationships for our product candidates, as well as evaluating compounds and companies for in-licensing or acquisition. To date, we have not received approval for the sale of any of our drug candidates in any market and, therefore, have not generated any product sales from our drug candidates.

#### **CORPORATE INFORMATION**

We were incorporated in Delaware in 1993. Our executive offices are located at 787 Seventh Avenue, New York, New York 10019. Our telephone number is 212-554-4484, and our e-mail address is [info@tgtxinc.com](mailto:info@tgtxinc.com).

We file reports with the SEC on an annual basis using Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K. You may read and copy any such reports and amendments thereto at the SEC’s Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549 on official business days during the hours of 10:00 a.m. to 3:00 p.m. Please call the SEC at 1-800-SEC-0330 for information on the Public Reference Room. Additionally, the SEC maintains a website that contains annual, quarterly, and current reports, proxy statements, and other information that issuers (including us) file electronically with the SEC. The SEC’s website address is <http://www.sec.gov>.

#### **RECENT DEVELOPMENTS**

##### ***Exchange Transaction with TG Therapeutics, Inc. and its majority shareholders***

On December 29, 2011, the Company entered into and consummated an Exchange Transaction Agreement with Opus Point Partners, LLC (“Opus”) and TG Therapeutics, Inc. (“TG”) (the “Agreement”).

Under the Agreement, Opus exchanged (the “Exchange Transaction”) its shares of common stock in TG (“TG Common Stock”) for shares of Series A preferred stock in the Company (“Company Preferred Stock”). The exchange ratio was \$2.25, divided by \$.04, divided by 500. As a result Opus received 281,250 shares of Company Preferred Stock. Furthermore, the Agreement provides that each holder of restricted TG Common Stock outstanding on December 29, 2011 receive restricted shares of Company Preferred Stock using the same exchange ratio, and such shares will carry the same restrictions that existed prior to the execution of the Agreement.

As a result of the Agreement, TG Therapeutics, Inc. became a majority-owned subsidiary of the Company. Since the stockholders of TG received the majority of the voting shares of the Company, the merger was accounted for as a reverse acquisition whereby TG was the accounting acquirer (legal acquiree) and the Company was the accounting acquiree (legal acquirer) under the acquisition method of accounting.

### **TGTX-1101 (ublituximab)**

In April 2011, TG acquired from LFB Biotechnologies, a fully owned subsidiary of France based LFB S.A., an option (the "License Option") for exclusive worldwide rights (except France/Belgium) to develop and market ublituximab ("LFB-R603"), a monoclonal antibody that targets a specific epitope on the B-cell lymphocyte CD20 antigen.

On January 30, 2012, TG Therapeutics exercised the License Option and entered into a license agreement with GTC Biotherapeutics, Inc., LFB Biotechnologies S.A.S. ("LFB"), and LFB/GTC LLC, all wholly-owned subsidiaries of LFB Group. In connection with the license agreement, TG Therapeutics issued 7,368,000 shares of its common stock to LFB, and the Company agreed to contribute \$15 million, less applicable fees and expenses associated with the financing, to TG Therapeutics to fund the development of ublituximab under the license agreement, in exchange for 7,500,000 shares of TG Therapeutics common stock.

In addition, in connection with the issuance of 7,368,000 TG Therapeutics shares, the Company and TG Therapeutics provided LFB Group, the option to, in its sole discretion, elect to convert all, and not less than all, of the TG Therapeutics' shares into 828,900 shares of Manhattan's Series A Preferred Stock, \$0.001 par value per share. Each share of Manhattan preferred stock shall be convertible into 500 shares of Manhattan's common stock, \$0.001 par value per share, in accordance with the terms of the Series A Preferred Stock Certificate of Designation filed with the Secretary of State of the State of Delaware on December 29, 2011. In addition, should Manhattan have sufficient common stock authorized and available for issuance at the time the Purchaser elects to convert, then Purchaser will receive such number of shares of Manhattan Common Stock into which the Manhattan Preferred Stock is then convertible. This option may be exercised by LFB Group at any time within 60 days of the filing of Manhattan's Annual Report on Form 10-K for the year ended December 31, 2011.

## **PRODUCTS UNDER DEVELOPMENT**

### **TGTX-1101 (ublituximab)**

#### *Overview*

TGTX-1101 ("LFB-R603" or "R603") is a chimeric murine/human monoclonal antibody with the generic name "ublituximab" that targets a unique epitope on the CD20 antigen found on the surface of B-cell lymphocytes developed to aid in the depletion of circulating B-cells. We hold exclusive worldwide rights (excepting France/Belgium) to develop and commercialize ublituximab for all indications, including the treatment of cancer and autoimmune diseases such as Non-Hodgkin's Lymphoma ("NHL") and Chronic Lymphocytic Leukemia ("CLL").

Multiple preclinical studies both *in vitro* and *in vivo* produced data that support the activity and potency of ublituximab as an efficient and selective B-cell targeting anti-CD20 antibody with the ability to effectively deplete B lymphocytes in both malignant laboratory cell models as well as NHL and CLL patient donor cell lines. B-cell depletion has been demonstrated to occur through three primary mechanisms: direct or programmed cell death ("DCD" or "PCD"), complement dependent cytotoxicity ("CDC"), and antibody dependent cell-mediated cytotoxicity ("ADCC") - the primary mechanism for which ublituximab has been bio-engineered for enhanced activity.

A two part, dose escalating Phase I clinical trial was recently completed in France in which ublituximab was introduced in relapsed or refractory CLL patients. In Part 1 of the study, 21 CLL patients in escalating dosage cohorts received once weekly infusions of ublituximab over the course of 4 weeks, with an additional 12 patients in Part 2 of the study receiving weekly infusions of ublituximab at a higher flat dose for 8 weeks. According to the investigators, results of Part 2 indicate single agent ublituximab therapy was well tolerated with primary adverse events including infusion related reactions, neutropenia, pyrexia and thrombocytopenia. Though the primary endpoint of this Phase I clinical study was to assess the safety and tolerability of ublituximab in CLL patients, robust B-cell depletion and an encouraging rate of partial responses may suggest preliminary evidence of efficacy. A portion of the data from Part 2 of this study was presented at the 53<sup>rd</sup> Annual American Society of Hematology Meeting in San Diego, CA. The Company intends to utilize the data generated from patients in the recently completed Phase I clinical trial to design and conduct future Phase I, II and III studies in the United States and internationally.

Manufacturing of ublituximab is currently performed by our partner, LFB Biotechnologies, using mammalian cells with plans to explore a second manufacturing method utilizing a transgenic animal vector developed by GTC Biotherapeutics, a wholly owned subsidiary of LFB S.A. To date, both LFB and GTC have invested in excess of a combined \$60 million in direct expenses related to the development of ublituximab.

#### *Pre-Clinical Data Overview*

The mechanism of action of anti-CD20 antibodies, including rituximab and ublituximab has been elucidated and detailed in numerous academic and clinical studies. Upon conjugation of the antibody to the CD20 surface antigen, rituximab has been found to deplete B-lymphocytes through three primary mechanisms: direct cell death (“DCD” or “programmed cell death” or “PCD”), complement dependent cytotoxicity (“CDC”), and antibody dependent cell-mediated cytotoxicity (“ADCC”).

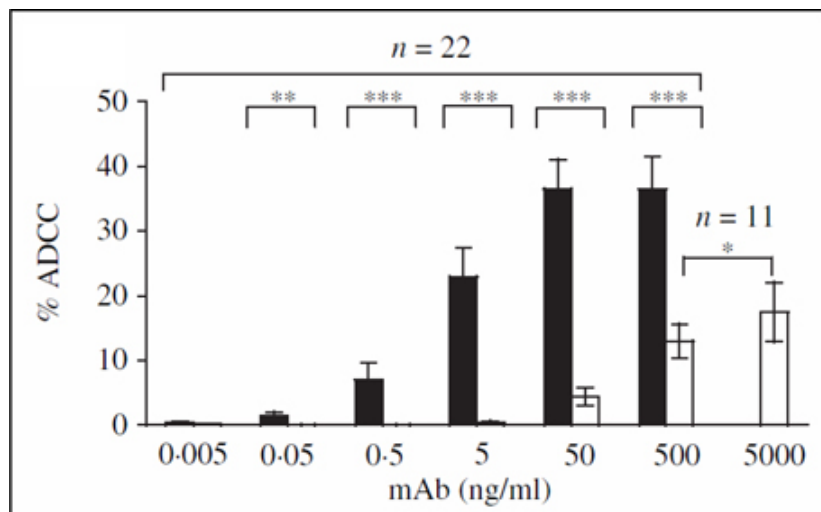
In programmed cell death, the binding of the antibody ligand to the CD20 antigen leads to the activation of apoptotic signaling pathways which include caspase-3, caspase-9, and the bcl-2 family of proteins. The resulting signaling cascade induces apoptosis of the B-lymphocyte, and has been found to be enhanced by hyper-crosslinking of antibodies and the binding of the Fc region of the antibody to an FcγR receptor on effector cells such as natural killer (“NK”) cells, macrophages, neutrophils or monocytes. Additionally anti-CD20 antibodies such as rituximab can induce non-apoptotic programmed cell death via vacuolar or lysosomal mechanisms.

Cell depletion via complement dependent cytotoxicity occurs when binding of the antibody to the CD20 epitope leads to activation of the complement immune system. The C1q component of the complement system binds to the Fc portions of the complexed anti-CD20 antibody, triggering a “complement cascade” of proteolytic events eventually leading to the formation of a membrane attack complex (“MAC”) which lyses the cell via osmotic influx. Alternatively, the complement cascade can trigger the opsonization of the B-cell by the C3b component which strongly targets the cell for phagocytosis by macrophages and neutrophils.

Antibody dependent cellular cytotoxicity is a mechanism that is dependent on interactions between the Fc region of the antibody and the FcγR receptors on immune system effector cells, most notably the FcγRIIIA (“CD16”) receptor found on NK cells. Fc-FcγR interactions trigger cells to release pre-forming proteins and proteases resulting in B-cell death. Empirically, ADCC has been the most heavily described and studied mechanism of action, and the subsequent focal point in the research and development of improved CD20 targeted antibodies.

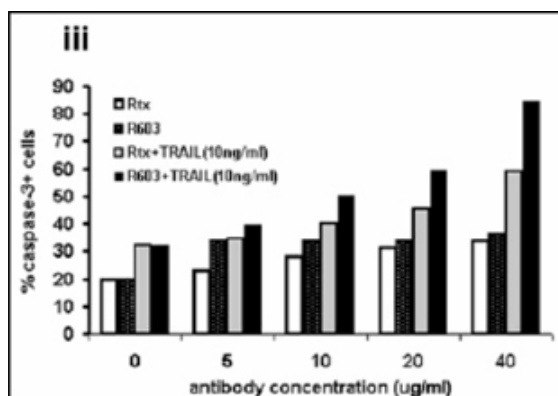
Ublituximab is a type I chimeric murine/human IgG1 monoclonal antibody with an engineered Fc region designed specifically to induce higher ADCC activity in comparison to rituximab. The antibody consists of 37% murine variable regions fused to 63% human constant regions.

*In vitro* preclinical testing has confirmed the superior ADCC induction ability of ublituximab over rituximab (see Figure 1). Tested on CLL patient donor B-cell samples at concentrations of 50 ng/mL, ublituximab produces ADCC activity of 35%, while rituximab was found to exhibit ADCC levels of only 5% at the same concentration.



**Figure 1:** ADCC activity of ublituximab (black) in comparison to rituximab (white) at equivalent concentrations. Cell lysis measured with calcein acetoxymethylester with %ADCC = (%lysis in presence of mAb)-(%lysis without mAb)

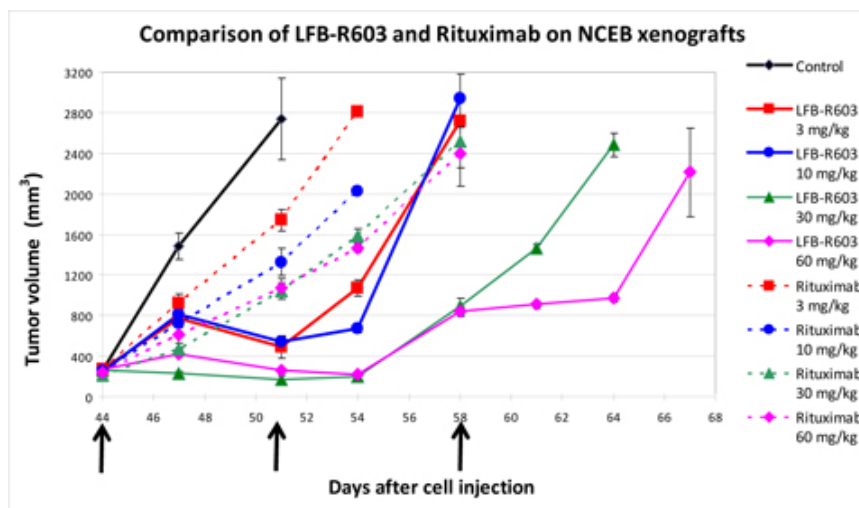
Ublituximab has also demonstrated significant CDC activity *in vitro*, competitive with rituximab when tested in an assay utilizing both Raji and Wil2S B-cell Lymphoma cell lines. Further *in vitro* studies have been conducted to evaluate the mechanism by which ublituximab affects apoptotic signaling pathways. Binding of ublituximab to the CD20 antigen was found to inhibit the NF- $\kappa$ B survival pathway which is often seen constitutively active in cancer cell lines, including NHL (see Figure 2). Deactivation of the NF- $\kappa$ B survival pathway causes inhibition of the Snail transcription factor which, when active, plays a role in repressing RKIP and PTEN, two pro-apoptotic genes. Once Snail is inactivated, RKIP and PTEN expression is unrepressed, leading to further inhibition of the NF- $\kappa$ B pathway by RKIP and inhibition of the PI3/Akt survival pathway by PTEN. The end result of these signaling alterations by ublituximab is the sensitization of the cell to apoptotic factors such as the TNF-related apoptosis inducing ligand (“TRAIL”) and chemotherapeutic agents. The Company believes these findings may suggest an enhanced synergistic ability of ublituximab when delivered in combination with chemotherapeutic agents in the treatment of B-cell proliferative diseases, leading to improved therapeutic outcomes.



**Figure 2:** Inhibition of the NF- $\kappa$ B pathway sensitizes cells to TRAIL induced apoptosis. R603 displays superior TRAIL sensitizing ability compared to RTX. Apoptosis measured by caspase 3 levels (an apoptotic signaling protein)

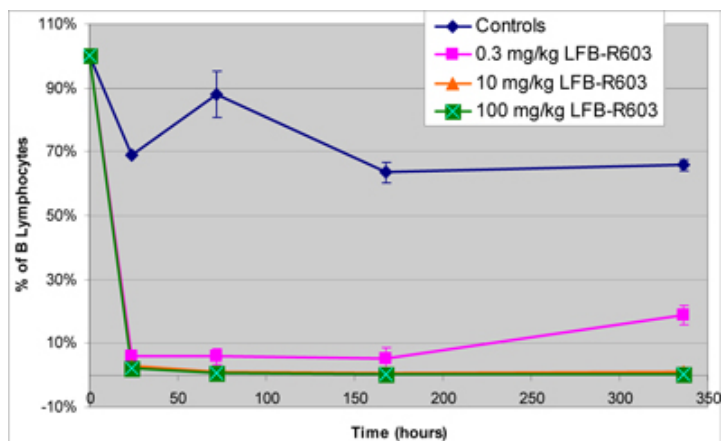


Ublituximab was also studied *in vivo* in severe combined immunodeficient (“SCID”) mice and cynomolgus monkeys. SCID mice with Mantle Cell Lymphoma (“MCL”) xenografts displayed markedly delayed tumor volume growth when treated with ublituximab compared with equivalent doses of rituximab. The inhibition of tumor growth by ublituximab is greater than rituximab at 4 dosage levels ranging from 3 mg/kg to 60 mg/kg (see Figure 3).



**Figure 3:** Influence of ublituximab (LFB-R603) vs. rituximab on tumor volume in xenograft MCL SCID mice. At equivalent dosages, LFB-R603 displays a markedly superior influence on tumor growth in comparison to rituximab.

In further *in vivo* studies, B-cell lymphocyte levels were observed in cynomolgus monkeys administered a single IV injection of ublituximab at varying concentrations. At the lowest dosage point of 0.3 mg/kg, depletion of B-cell lymphocytes was sustained for 77 days and recovered to only 16% of basal level at day 130 (see Figure 4).



**Figure 4:** B-cell lymphocyte levels observed in cynomolgus monkeys following single IV injection of ublituximab at varying dosage levels.

Additional pre-clinical studies of ublituximab, including *in vivo* assays in combination with chemotherapeutic agents, were presented in abstract and poster form at the 53<sup>rd</sup> Annual American Society of Hematology Meeting in San Diego, CA in December 2011. As a result of the elucidation of the mechanism of action of ublituximab, and observance of its performance in various *in vitro* and *in vivo* assays in comparison to the gold standard, rituximab, the Company believes ublituximab is an active and potent CD20 targeted antibody.

#### Clinical Data Overview

A multicenter, open-label Phase I clinical trial of ublituximab was recently completed which aimed to assess the safety, tolerability, and efficacy of ublituximab in patients with relapsed or refractory CLL. This two part, first-in-man, dose escalating trial was conducted in 9 centers in France with preliminary results from Parts 1 and 2 presented at the 52<sup>nd</sup> and 53<sup>rd</sup> Annual American Society of Hematology (“ASH”) meetings.

The study included patients who had relapsed or refractory CLL following at least one prior course of fludarabine and were between the ages of 18 and 80 years old. Patients were excluded if they had prior treatment with any anti-CD20 monoclonal antibody within the 6 months prior to enrollment, displayed a creatinine clearance level below 60 mL/min, or had an ALT and/or AST level greater than 1.5N.

In Part 1 of this trial, 21 patients were enrolled with a median age of 62 years. Disease status included 20 CLL patients relapsed and 1 CLL patient refractory to treatment with 12 patients (57%) having had prior exposure to rituximab. All patients (100%) displayed lymph node enlargement with 8 patients (38%) considered “Bulky” (>5cm).

The study regimen in Part 1 involved 21 patients receiving infusions of ublituximab at a dose ranging from 5mg to 450mg once weekly over the course of 4 weeks. Premedication consisted of allopurinol, dexchlorpheniramine and paracetamol combined with methylprednisolone at 1 mg/kg prior to the first two infusions. Patients were assessed at week 16 with a follow up assessment at week 24 for those patients displaying a partial response (“PR”) at week 16.

The patients were divided into 5 dosing cohorts with dosages escalated based on safety in a 3+3 design. Total dosage over 4 weeks ranged from 75 mg in cohort A to 1650 mg in cohort E (see Figure 5).

Dose-level cohorts	Cohort	Patients (n)	LFB-R603 doses (mg)	
			For each infusion	Total
	A	6*	5 - 10 - 20 - 40	75
	B	3	20 - 60 - 60 - 60	200
	C	3	60 - 150 - 150 - 150	510
	D	3	150 - 300 - 300 - 300	1050
	E	6*	300 - 450 - 450 - 450	1650

\* According to Safety Committee recommendations

**Figure 5:** Dosage levels for each cohort in Part 1 of Phase I/II study of ublituximab

Adverse events were consistent with those exhibited by other anti-CD20 antibodies and consisted mostly of infusion related reactions, infection, headache, neutropenia, thrombocytopenia and transient elevation of AST/ALT levels. Assessing patients according to the National Cancer Institute-Working Group (“NCI/WG”) CLL guidelines, 5 out of 18 (28%) of evaluable patients were in partial response (“PR”) at week 16 in Part 1, with three of these five having confirmed PR at week 24.

Part 2 of this study evaluated the safety and efficacy profile of ublituximab when administered in an 8-dose regimen (150mg initial dose, followed by 7 doses of 450mg). Inclusion criteria were the same as Part 1, with 12 patients enrolled, having a median age of 69.5 years, and a median of 3 prior therapies. Seven of these patients had received at least one prior rituximab containing regimen.

Adverse events were similar to Part 1 of this study, with the most frequent being infusion related reactions, neutropenia, pyrexia, and thrombocytopenia. All AEs were reversible spontaneously or with supportive care.

Rapid, near total blood lymphocyte depletion was observed in all patients except one and was sustained up to 10 months after the last infusion of ublituximab. With efficacy assessment at month 4 according to NCI-WG guidelines following treatment, ublituximab was found to produce a durable PR in 5/11 (45%) evaluable patients. The Company intends to pursue additional Phase I and II trials to explore the use of ublituximab in CLL and other B-cell proliferative diseases.

#### Market Opportunity

Anti-CD20 antibodies have been approved and studied in a variety of diseases falling into several therapeutic areas including oncology, autoimmune disorders, and neurologic disease, creating a market with worldwide sales of roughly \$7 Billion in 2010. NHL and CLL are the most common B-cell proliferative diseases for which rituximab, the first anti-CD20 antibody approved by the FDA, is the current gold standard treatment. While the addition of rituximab to chemotherapeutic treatment of NHL has dramatically improved patient outcomes, there are still many drawbacks to the current standard of care.

Rituximab’s usage as a single agent for lymphoma has proved to be largely ineffective with half of patients refractory to treatment or relapsing shortly following therapy. Patients with CLL have been shown to be poor responders to rituximab treatment, an outcome attributed to weak expression of the CD20 cell surface antigen on B-CLL lymphocytes. Rituximab resistance is becoming an increasing concern for clinicians as relapsing patients are exposed to multiple lines of rituximab containing regimens to treat recurrence of disease. Approximately half of patients initially responsive to their first exposure to rituximab do not respond upon retreatment.

We believe these factors contribute to an immediate and sustained need for anti-CD20 monoclonal antibody that is differentiated and therapeutically superior to the gold standard rituximab in order to extend and enhance CD20 therapy as it stands today.

## AST-726

AST-726 is a nasally delivered form of hydroxocobalamin for the treatment of Vitamin B<sub>12</sub> deficiency. The Company acquired global rights to AST-726 as part of the Ariston acquisition. AST-726 has demonstrated pharmacokinetic equivalence to a marketed intramuscular injection product for Vitamin B<sub>12</sub> remediation. The Company believes that AST-726 may enable both a single, once-monthly treatment for maintenance of normal Vitamin B<sub>12</sub> levels in deficient patients, and more frequent administration to restore normal levels in newly diagnosed B<sub>12</sub> deficiency. Further, we believe that AST-726 could offer a convenient, painless, safe and cost-effective treatment for Vitamin B<sub>12</sub> deficiency, eliminating the need for intramuscular injections.

The Company has reached an agreement with the U.S. Food and Drug Administration (FDA) on a special protocol assessment (SPA) for the design of a Phase 3 clinical trial of AST-726 in patients with a confirmed medical history of Vitamin B<sub>12</sub> deficiency. The Company has designed an open label, multicenter study for investigating the maintenance of trough serum cobalamin levels after monthly administration of AST-726, with a goal of enrolling approximately 75 subjects and a goal of having 53 evaluable subjects complete the study.

The Company is currently reviewing its development plans for AST-726, which may include: (1) ceasing further development and attempting to sell or license AST-726, (2) continuing development as originally contemplated under the SPA or (3) evaluating and implementing alternative development plans. No decision has been made as to which approach to execute. A final decision is expected to take 6-12 months, but may occur earlier or later.

The Company has a sponsored research arrangement for AST-915, an orally delivered treatment for essential tremor, which is currently ongoing and we expect to conclude in June 2012. It is unlikely that the Company will continue the development of AST-915 thereafter, but a final determination will be reserved until development activities have concluded.

The Company has discontinued development of the topical GEL for the treatment of mild psoriasis.

## COSTS AND TIME TO COMPLETE PRODUCT DEVELOPMENT

The information below provides estimates regarding the costs associated with the completion of the current development phase and our current estimated range of the time that will be necessary to complete that development phase for our key pipeline products. We also direct your attention to the risk factors which could significantly affect our ability to meet these cost and time estimates found in this report in Item 1A under the heading "Risks Related to Manhattan's Business and Industry."

<b>Product candidate</b>	<b>Target indication</b>	<b>Development status</b>	<b>Completion of phase</b>	<b>Estimated cost to complete phase</b>
<i>TGTX-1101 (ublituximab)</i>	Multiple forms of cancer and various autoimmune diseases	Phase I/II	Mid-2014	Approximately \$4 million

Completion dates and costs in the above table are estimates due to the uncertainties associated with clinical trials and the related requirements of development. In the cases where the requirements for clinical trials and development programs have not been fully defined, or are dependent on the success of other trials, we cannot estimate trial completion or cost with any certainty. The actual spending on each trial during the year is also dependent on funding. We therefore direct your attention to Item 7 under the heading "Liquidity and Capital Resources."

## INTELLECTUAL PROPERTY AND PATENTS

### General

Our goal is to obtain, maintain and enforce patent protection for our products, formulations, processes, methods and other proprietary technologies, preserve our trade secrets, and operate without infringing on the proprietary rights of other parties, both in the United States and in other countries. Our policy is to actively seek to obtain, where appropriate, the broadest intellectual property protection possible for our product candidates, proprietary information and proprietary technology through a combination of contractual arrangements and patents, both in the U.S. and elsewhere in the world.

We also depend upon the skills, knowledge and experience of our scientific and technical personnel, as well as that of our advisors, consultants and other contractors. This knowledge and experience we call "know-how." To help protect our proprietary know-how which is not patentable, and for inventions for which patents may be difficult to enforce, we rely on trade secret protection and confidentiality agreements to protect our interests. To this end, we require all employees, consultants, advisors and other contractors to enter into confidentiality agreements which prohibit the disclosure of confidential information and, where applicable, require disclosure and assignment to us of the ideas, developments, discoveries and inventions important to our business.

Patents and other proprietary rights are crucial to the development of our business. We will be able to protect our proprietary technologies from unauthorized use by third parties only to the extent that our proprietary rights are covered by valid and enforceable patents, supported by regulatory exclusivity or are effectively maintained as trade secrets. We have a number of patents and patent applications related to our compounds and other technology, but we cannot guarantee the scope of protection of the issued patents, or that such patents will survive a validity or enforceability challenge, or that any of the pending patent applications will issue as patents.

Generally, patent applications in the U.S. are maintained in secrecy for a period of 18 months or more. Since publication of discoveries in the scientific or patent literature often lag behind actual discoveries, we are not certain that we were the first to make the inventions covered by each of our pending patent applications or that we were the first to file those patent applications. The patent positions of biotechnology and pharmaceutical companies are highly uncertain and involve complex legal and factual questions. Therefore, we cannot predict the breadth of claims allowed in biotechnology and pharmaceutical patents, or their enforceability. To date, there has been no consistent policy regarding the breadth of claims allowed in biotechnology patents. Third parties or competitors may challenge or circumvent our patents or patent applications, if issued. If our competitors prepare and file patent applications in the U.S. that claim technology also claimed by us, we may have to participate in interference proceedings declared by the U.S. Patent and Trademark Office to determine priority of invention, which could result in substantial cost, even if the eventual outcome is favorable to us. Because of the extensive time required for development, testing and regulatory review of a potential product, it is possible that before we commercialize any of our products, any related patent may expire or remain in existence for only a short period following commercialization, thus reducing any advantage of the patent. However, the life of a patent covering a product that has been subject to regulatory approval may have the ability be extended through the patent restoration program, although any such extension could still be minimal.

If a patent is issued to a third party containing one or more preclusive or conflicting claims, and those claims are ultimately determined to be valid and enforceable, we may be required to obtain a license under such patent or to develop or obtain alternative technology. In the event of litigation involving a third party claim, an adverse outcome in the litigation could subject us to significant liabilities to such third party, require us to seek a license for the disputed rights from such third party, and/or require us to cease use of the technology. Further, our breach of an existing license or failure to obtain a license to technology required to commercialize our products may seriously harm our business. We also may need to commence litigation to enforce any patents issued to us or to determine the scope and validity of third-party proprietary rights. Litigation would involve substantial costs.

#### **TGTX-1101**

Pursuant to our license for TGTX-1101 (ublituximab) with LFB Biotechnologies, GTC Biotherapeutics, and LFB/GTC LLC, we have the exclusive commercial rights to a series of patents and patent applications in the U.S., and in multiple countries around the world. These patents and patent applications include composition of matter patents relating to the structure and mechanism of action for ublituximab as well as method of use patents which cover use of ublituximab in combination with various agents and for various therapeutic indications.

#### **AST-726**

The Company has patent rights and other intellectual property relating to AST-726:

- U.S. Patent No. 5,801,161 entitled, "Pharmaceutical composition for the intranasal administration of hydroxocobalamin." Franciscus W.H.M. Merkus, Inventor. Application filed June 17, 1996. Patent issued September 1, 1998. This patent is scheduled to expire on September 1, 2015.

- European Patent No. EP0735859B1 (granted July 30, 1997, national phase of PCT Publication No. WO9517164) entitled, "Pharmaceutical composition for the intranasal administration of hydroxocobalamin." Franciscus W.H.M. Merkus, Inventor. Application filed May 13, 1994. Patents validated in Great Britain, Austria, Belgium, Denmark, France, Ireland, Italy, the Netherlands, Switzerland, Germany, Spain, and Sweden are scheduled to expire on May, 13, 2014.

## AST-915

The Company has patent rights and other intellectual property relating to AST-915:

U.S. Patent Application No. PCT/US2009/000876 entitled "Octanoic acid formulations and methods of treatment using the same." McLane, Nahab, and Hallet, Inventors. Application filed February 12, 2009. This application has not yet issued as a patent.

The patent rights that we own or have licensed relating to our product candidates are limited in ways that may affect our ability to exclude third parties from competing against us if we obtain regulatory approval to market these product candidates. See section "**Risks Related to the Company's Intellectual Property.**"

Proof of direct infringement by a competitor for method of use patents can prove difficult because the competitors making and marketing a product typically do not engage in the patented use. Additionally, proof that a competitor contributes to or induces infringement of a patented method of use by another can also prove difficult because an off-label use of a product could prohibit a finding of contributory infringement and inducement of infringement requires proof of intent by the competitor.

Moreover, physicians may prescribe such a competitive identical product for indications other than the one for which the product has been approved, or off-label indications, that are covered by the applicable patents. Although such off-label prescriptions may directly infringe or contribute to or induce infringement of method of use patents, such infringement is difficult to prevent or prosecute.

In addition, the limited patent protection described above may adversely affect the value of our product candidates and may inhibit our ability to obtain a corporate partner at terms acceptable to us, if at all.

### **Other Intellectual Property Rights**

We depend upon trademarks, trade secrets, know-how and continuing technological advances to develop and maintain our competitive position. To maintain the confidentiality of trade secrets and proprietary information, we require our employees, scientific advisors, consultants and collaborators, upon commencement of a relationship with us, to execute confidentiality agreements and, in the case of parties other than our research and development collaborators, to agree to assign their inventions to us. These agreements are designed to protect our proprietary information and to grant us ownership of technologies that are developed in connection with their relationship with us. These agreements may not, however, provide protection for our trade secrets in the event of unauthorized disclosure of such information.

In addition to patent protection, we may utilize orphan drug regulations or other provisions of the Food, Drug and Cosmetic Act of 1938, as amended, or FDCA, to provide market exclusivity for certain of our drug candidates. Orphan drug regulations provide incentives to pharmaceutical and biotechnology companies to develop and manufacture drugs for the treatment of rare diseases, currently defined as diseases that exist in fewer than 200,000 individuals in the U.S., or, diseases that affect more than 200,000 individuals in the U.S. but that the sponsor does not realistically anticipate will generate a net profit. Under these provisions, a manufacturer of a designated orphan-drug can seek tax benefits, and the holder of the first FDA approval of a designated orphan product will be granted a seven-year period of marketing exclusivity for such FDA-approved orphan product.

Pursuant to these regulations, TGTX-1101 (ublituximab) has received Orphan-Drug designation from the FDA for the treatment of CLL in August of 2010, and Orphan-Drug designation by the EMA for the treatment of CLL in November of 2009. We believe that TGTX-1101 may be eligible for additional orphan drug designations; however, we cannot assure that TGTX-1101, or any other drug candidates we may acquire or in-license, will obtain such orphan drug designations. Additionally, upon FDA approval, we believe that ublituximab would qualify as a New Chemical Entity, or NCE, which provides for five years of exclusivity following approval.

We cannot assure that any other drug candidates we may acquire or in-license, will obtain such orphan drug designation or that we will be the first to receive FDA approval for such drugs so as to be eligible for market exclusivity protection.

### **LICENSING AGREEMENTS AND COLLABORATIONS**

We have formed strategic alliances with a number of companies for the manufacture and commercialization of our products. Our current key strategic alliances are discussed below.

## ***LFB Biotechnologies S.A.S, GTC Biotherapeutics, LFB/GTC LLC.***

In January 2012, we entered into an exclusive license agreement with LFB Biotechnologies, GTC Biotherapeutics, and LFB/GTC LLC, all wholly-owned subsidiaries of LFB Group, relating to the development of ublituximab. Under the license agreement, we have acquired the exclusive worldwide rights (exclusive of France/Belgium) for the development and commercialization of TGTX-1101 (ublituximab). To date, we have made no payments to LFB Group and LFB Group is eligible to receive payments of up to an aggregate of approximately \$31.0 million upon our successful achievement of certain clinical development, regulatory and sales milestones, in addition to royalty payments on net sales of ublituximab. The license will terminate on a country by country basis upon the expiration of the last licensed patent right or 15 years after the first commercial sale of a product in such country, unless the agreement is earlier terminated.

## **COMPETITION**

Competition in the pharmaceutical and biotechnology industries is intense. Our competitors include pharmaceutical companies and biotechnology companies, as well as universities and public and private research institutions. In addition, companies that are active in different but related fields represent substantial competition for us. Many of our competitors have significantly greater capital resources, larger research and development staffs and facilities and greater experience in drug development, regulation, manufacturing and marketing than we do. These organizations also compete with us to recruit qualified personnel, attract partners for joint ventures or other collaborations, and license technologies that are competitive with ours. To compete successfully in this industry we must identify novel and unique drugs or methods of treatment and then complete the development of those drugs as treatments in advance of our competitors.

The drugs that we are attempting to develop will have to compete with existing therapies. In addition, a large number of companies are pursuing the development of pharmaceuticals that target the same diseases and conditions that we are targeting. Other companies have products or drug candidates in various stages of pre-clinical or clinical development to treat diseases for which we are also seeking to discover and develop drug candidates. Some of these potential competing drugs are further advanced in development than our drug candidates and may be commercialized earlier. Additional information can be found under Item 1A - Risk Factors – Other Risks Related to Our Business within this report.

## **SUPPLY AND MANUFACTURING**

We have limited experience in manufacturing products for clinical or commercial purposes. We currently do not have any manufacturing capabilities. We have established contract manufacturing relationships for the supply of TGTX-1101 as part of our license agreement with LFB Biotechnologies, GTC Biotherapeutics, and LFB/GTC. As with any supply program, obtaining raw materials of the correct quality cannot be guaranteed and we cannot ensure that we will be successful in this endeavor.

At the time of commercial sale, to the extent possible and commercially practicable, we would seek to engage a back-up supplier for each of our product candidates. Until such time, we expect that we will rely on a single contract manufacturer to produce each of our product candidates under current Good Manufacturing Practice, or cGMP, regulations. Our third-party manufacturers have a limited number of facilities in which our product candidates can be produced and will have limited experience in manufacturing our product candidates in quantities sufficient for commercialization. Our third-party manufacturers will have other clients and may have other priorities that could affect their ability to perform the work satisfactorily and/or on a timely basis. Both of these occurrences would be beyond our control.

We expect to similarly rely on contract manufacturing relationships for any products that we may in-license or acquire in the future. However, there can be no assurance that we will be able to successfully contract with such manufacturers on terms acceptable to us, or at all.

Contract manufacturers are subject to ongoing periodic and unannounced inspections by the FDA, the Drug Enforcement Administration and corresponding state agencies to ensure strict compliance with cGMP and other state and federal regulations. Our contractors in Europe face similar challenges from the numerous European Union and member state regulatory agencies and authorized bodies. We do not have control over third-party manufacturers' compliance with these regulations and standards, other than through contractual obligations. If they are deemed out of compliance with cGMPs, product recalls could result, inventory could be destroyed, production could be stopped and supplies could be delayed or otherwise disrupted.

If we need to change manufacturers after commercialization, the FDA and corresponding foreign regulatory agencies must approve these new manufacturers in advance, which will involve testing and additional inspections to ensure compliance with FDA regulations and standards and may require significant lead times and delay. Furthermore, switching manufacturers may be difficult because the number of potential manufacturers is limited. It may be difficult or impossible for us to find a replacement manufacturer quickly or on terms acceptable to us, or at all.

## GOVERNMENT AND INDUSTRY REGULATION

Numerous governmental authorities, principally the FDA and corresponding state and foreign regulatory agencies, impose substantial regulations upon the clinical development, manufacture and marketing of our drug candidates, as well as our ongoing research and development activities. None of our drug candidates have been approved for sale in any market in which we have marketing rights. Before marketing in the U.S., any drug that we develop must undergo rigorous pre-clinical testing and clinical trials and an extensive regulatory approval process implemented by the FDA under the FDCA. The FDA regulates, among other things, the pre-clinical and clinical testing, safety, efficacy, approval, manufacturing, record keeping, adverse event reporting, packaging, labeling, storage, advertising, promotion, export, sale and distribution of biopharmaceutical products.

The regulatory review and approval process is lengthy, expensive and uncertain. We are required to submit extensive pre-clinical and clinical data and supporting information to the FDA for each indication or use to establish a drug candidate's safety and efficacy before we can secure FDA approval to market or sell a product in the U.S. The approval process takes many years, requires the expenditure of substantial resources and may involve ongoing requirements for post-marketing studies or surveillance. Before commencing clinical trials in humans, we must submit an IND to the FDA containing, among other things, pre-clinical data, chemistry, manufacturing and control information, and an investigative plan. Our submission of an IND may not result in FDA authorization to commence a clinical trial.

The FDA may permit expedited development, evaluation, and marketing of new therapies intended to treat persons with serious or life-threatening conditions for which there is an unmet medical need under its fast track drug development programs. A sponsor can apply for fast track designation at the time of submission of an IND, or at any time prior to receiving marketing approval of the new drug application, or NDA. To receive Fast Track designation, an applicant must demonstrate:

- that the drug is intended to treat a serious or life-threatening condition;
- that the drug is intended to treat a serious aspect of the condition; and
- that the drug has the potential to address unmet medical needs, and this potential is being evaluated in the planned drug development program.

The FDA must respond to a request for fast track designation within 60 calendar days of receipt of the request. Over the course of drug development, a product in a fast track development program must continue to meet the criteria for fast track designation. Sponsors of products in fast track drug development programs must be in regular contact with the reviewing division of the FDA to ensure that the evidence necessary to support marketing approval will be developed and presented in a format conducive to an efficient review. Sponsors of products in fast track drug development programs ordinarily are eligible for priority review of a completed application in six months or less and also may be permitted to submit portions of a NDA to the FDA for review before the complete application is submitted.

Sponsors of drugs designated as fast track also may seek approval under the FDA's accelerated approval regulations. Under this authority, the FDA may grant marketing approval for a new drug product on the basis of adequate and well-controlled clinical trials establishing that the drug product has an effect on a surrogate endpoint that is reasonably likely, based on epidemiologic, therapeutic, pathophysiologic, or other evidence, to predict clinical benefit or on the basis of an effect on a clinical endpoint other than survival or irreversible morbidity. Approval will be subject to the requirement that the applicant study the drug further to verify and describe its clinical benefit where there is uncertainty as to the relation of the surrogate endpoint to clinical benefit or uncertainty as to the relation of the observed clinical benefit to ultimate outcome. Post-marketing studies are usually underway at the time an applicant files the NDA. When required to be conducted, such post-marketing studies must also be adequate and well-controlled. The applicant must carry out any such post-marketing studies with due diligence. Many companies who have been granted the right to utilize an accelerated approval approach have failed to obtain approval. Moreover, negative or inconclusive results from the clinical trials we hope to conduct or adverse medical events could cause us to have to repeat or terminate the clinical trials. Accordingly, we may not be able to complete the clinical trials within an acceptable time frame, if at all, and, therefore, could not submit the NDA to the FDA or foreign regulatory authorities for marketing approval.

Clinical testing must meet requirements for institutional review board oversight, informed consent and good clinical practices, and must be conducted pursuant to an IND, unless exempted.

For purposes of NDA approval, clinical trials are typically conducted in the following sequential phases:

- *Phase 1:* The drug is administered to a small group of humans, either healthy volunteers or patients, to test for safety, dosage tolerance, absorption, metabolism, excretion, and clinical pharmacology.
- *Phase 2:* Studies are conducted on a larger number of patients to assess the efficacy of the product, to ascertain dose tolerance and the optimal dose range, and to gather additional data relating to safety and potential adverse events.
- *Phase 3:* Studies establish safety and efficacy in an expanded patient population.
- *Phase 4:* The FDA may require Phase 4 post-marketing studies to find out more about the drug's long-term risks, benefits, and optimal use, or to test the drug in different populations.

The length of time necessary to complete clinical trials varies significantly and may be difficult to predict. Clinical results are frequently susceptible to varying interpretations that may delay, limit or prevent regulatory approvals. Additional factors that can cause delay or termination of our clinical trials, or that may increase the costs of these trials, include:

- slow patient enrollment due to the nature of the clinical trial plan, the proximity of patients to clinical sites, the eligibility criteria for participation in the study or other factors;
- inadequately trained or insufficient personnel at the study site to assist in overseeing and monitoring clinical trials or delays in approvals from a study site's review board;
- longer treatment time required to demonstrate efficacy or determine the appropriate product dose;
- insufficient supply of the drug candidates;
- adverse medical events or side effects in treated patients; and
- ineffectiveness of the drug candidates.

In addition, the FDA, equivalent foreign regulatory authority, or a data safety monitoring committee for a trial may place a clinical trial on hold or terminate it if it concludes that subjects are being exposed to an unacceptable health risk, or for futility. Any drug is likely to produce some toxicity or undesirable side effects in animals and in humans when administered at sufficiently high doses and/or for a sufficiently long period of time. Unacceptable toxicity or side effects may occur at any dose level at any time in the course of studies in animals designed to identify unacceptable effects of a drug candidate, known as toxicological studies, or clinical trials of drug candidates. The appearance of any unacceptable toxicity or side effect could cause us or regulatory authorities to interrupt, limit, delay or abort the development of any of our drug candidates and could ultimately prevent approval by the FDA or foreign regulatory authorities for any or all targeted indications.

Sponsors of drugs may apply for an SPA from the FDA. The SPA process is a procedure by which the FDA provides official evaluation and written guidance on the design and size of proposed protocols that are intended to form the basis for a new drug application. However, final marketing approval depends on the results of efficacy, the adverse event profile and an evaluation of the benefit/risk of treatment demonstrated in the Phase 3 trial. The SPA agreement may only be changed through a written agreement between the sponsor and the FDA, or if the FDA becomes aware of a substantial scientific issue essential to product safety or efficacy.

Before receiving FDA approval to market a product, we must demonstrate that the product is safe and effective for its intended use by submitting to the FDA an NDA containing the pre-clinical and clinical data that have been accumulated, together with chemistry and manufacturing and controls specifications and information, and proposed labeling, among other things. The FDA may refuse to accept an NDA for filing if certain content criteria are not met and, even after accepting an NDA, the FDA may often require additional information, including clinical data, before approval of marketing a product.

It is also becoming more common for the FDA to request a Risk Evaluation and Mitigation Strategy, or REMS, as part of a NDA. The REMS plan contains post-market obligations of the sponsor to train prescribing physicians, monitor off-label drug use, and conduct sufficient Phase 4 follow-up studies and registries to ensure the continued safe use of the drug.



As part of the approval process, the FDA must inspect and approve each manufacturing facility. Among the conditions of approval is the requirement that a manufacturer's quality control and manufacturing procedures conform to cGMP. Manufacturers must expend significant time, money and effort to ensure continued compliance, and the FDA conducts periodic inspections to certify compliance. It may be difficult for our manufacturers or us to comply with the applicable cGMP, as interpreted by the FDA, and other FDA regulatory requirements. If we, or our contract manufacturers, fail to comply, then the FDA may not allow us to market products that have been affected by the failure.

If the FDA grants approval, the approval will be limited to those disease states, conditions and patient populations for which the product is safe and effective, as demonstrated through clinical studies. Further, a product may be marketed only in those dosage forms and for those indications approved in the NDA. Certain changes to an approved NDA, including, with certain exceptions, any significant changes to labeling, require approval of a supplemental application before the drug may be marketed as changed. Any products that we manufacture or distribute pursuant to FDA approvals are subject to continuing monitoring and regulation by the FDA, including compliance with cGMP and the reporting of adverse experiences with the drugs. The nature of marketing claims that the FDA will permit us to make in the labeling and advertising of our products will generally be limited to those specified in FDA approved labeling, and the advertising of our products will be subject to comprehensive monitoring and regulation by the FDA. Drugs whose review was accelerated may carry additional restrictions on marketing activities, including the requirement that all promotional materials are pre-submitted to the FDA. Claims exceeding those contained in approved labeling will constitute a violation of the FDCA. Violations of the FDCA or regulatory requirements at any time during the product development process, approval process, or marketing and sale following approval may result in agency enforcement actions, including withdrawal of approval, recall, seizure of products, warning letters, injunctions, fines and/or civil or criminal penalties. Any agency enforcement action could have a material adverse effect on our business.

Should we wish to market our products outside the U.S., we must receive marketing authorization from the appropriate foreign regulatory authorities. The requirements governing the conduct of clinical trials, marketing authorization, pricing and reimbursement vary widely from country to country. At present, companies are typically required to apply for foreign marketing authorizations at a national level. However, within the European Union, registration procedures are available to companies wishing to market a product in more than one European Union member state. Typically, if the regulatory authority is satisfied that a company has presented adequate evidence of safety, quality and efficacy, then the regulatory authority will grant a marketing authorization. This foreign regulatory approval process, however, involves risks similar or identical to the risks associated with FDA approval discussed above, and therefore we cannot guarantee that we will be able to obtain the appropriate marketing authorization for any product in any particular country.

Failure to comply with applicable federal, state and foreign laws and regulations would likely have a material adverse effect on our business. In addition, federal, state and foreign laws and regulations regarding the manufacture and sale of new drugs are subject to future changes. We cannot predict the likelihood, nature, effect or extent of adverse governmental regulation that might arise from future legislative or administrative action, either in the U.S. or abroad.

## **EMPLOYEES**

As of March 5, 2012, we had 5 full and part-time employees. None of our employees are represented by a collective bargaining agreement, and we have never experienced a work stoppage. We consider our relations with our employees to be good.

## ITEM 1A. RISK FACTORS.

*You should carefully consider the following risks and uncertainties. If any of the following occurs, our business, financial condition or operating results could be materially harmed. An investment in our securities is speculative in nature, involves a high degree of risk, and should not be made by an investor who cannot bear the economic risk of its investment for an indefinite period of time and who cannot afford the loss of its entire investment. You should carefully consider the following risk factors and the other information contained elsewhere in this Annual Report before making an investment in our securities.*

### **Risks Related to Manhattan's Business and Industry.**

***Because the Company has in-licensed its product candidates from third parties, any dispute with or non-performance by its licensors will adversely affect its ability to develop and commercialize the applicable product candidates.***

Our product candidates have been in-licensed from third parties. Under the terms of our license agreements, the licensors generally will have the right to terminate such agreement in the event of a material breach by us. The licensors will also have the right to terminate the agreement in the event we fail to use diligent and reasonable efforts to develop and commercialize the product candidate worldwide.

If there is any conflict, dispute, disagreement or issue of non-performance between us and our licensing partners regarding our rights or obligations under the license agreements, including any such conflict, dispute or disagreement arising from our failure to satisfy payment obligations under such agreement, our ability to develop and commercialize the affected product candidate and our ability to enter into collaboration or marketing agreements for the affected product candidate may be adversely affected. Any loss of our rights under these license agreements would delay or completely terminate its product development efforts for the affected product candidate.

***We do not have full internal development capabilities, and are thus reliant upon our partners and third parties to generate clinical, preclinical and quality data necessary to support the regulatory applications needed to conduct clinical trials and file for marketing approval.***

In order to submit an Investigational New Drug application ("IND") and Biologics License Application ("BLA") to the FDA, it is necessary to submit all information on the clinical, non-clinical, chemistry, manufacturing, controls and quality aspects of the product candidate. We rely on our licensing partners and, in some cases, third parties, to provide this data. If we are unable to obtain this data, or the data is not sufficient to meet the regulatory requirements, we may experience significant delays in our development programs. We currently do not have an active IND in the United States and no assurance can be given that we will be successful in obtaining an active IND. Without an active IND, we would be unable to conduct clinical trials in the United States, which would likely negatively impact the timelines discussed throughout this filing.

***We are highly dependent on the success of our product candidates and cannot give any assurance that these or any future product candidates will be successfully commercialized.***

We are a development-stage biopharmaceutical company, and do not currently have any commercial products that generate revenues or any other sources of revenue. We may never be able to successfully develop marketable products. Our pharmaceutical development methods are unproven and may not lead to commercially viable products for any of several reasons.

If we are unable to develop, or receive regulatory approval for or successfully commercialize any of our product candidates, we will not be able to generate product revenues.

***Because the results of preclinical studies and early clinical trials are not necessarily predictive of future results, any product candidate we advance into clinical trials may not have favorable results in later clinical trials, if any, or receive regulatory approval.***

Pharmaceutical development has inherent risk. We will be required to demonstrate through adequate and well-controlled clinical trials that our product candidates are effective with a favorable benefit-risk profile for use in diverse populations for their target indications before we can seek regulatory approvals for their commercial sale. Success in early clinical trials does not mean that later clinical trials will be successful because product candidates in later-stage clinical trials may fail to demonstrate sufficient safety or efficacy despite having progressed through initial clinical testing. Companies frequently suffer significant setbacks in advanced clinical trials, even after earlier clinical trials have shown promising results. In addition, there is typically an extremely high rate of attrition from the failure of pharmaceutical candidates proceeding through clinical trials.

We plan on conducting additional Phase I and II clinical trials for ublituximab. If the results from these trials are different from those found in the completed Phase I clinical trial of ublituximab, we may need to terminate or revise our clinical development plan, which could extend the time for conducting our development program and could have a material adverse effect on our business.

***Any product candidates we may advance into clinical development are subject to extensive regulation, which can be costly and time consuming, cause unanticipated delays or prevent the receipt of the required approvals to commercialize our product candidates.***

The clinical development, manufacturing, labeling, storage, record-keeping, advertising, promotion, import, export, marketing and distribution of our product candidates or any future product candidates are subject to extensive regulation by the FDA in the United States and by comparable health authorities worldwide or in foreign markets. In the United States, we are not permitted to market our product candidates until we receive approval of a BLA or NDA from the FDA. The process of obtaining BLA and NDA approval is expensive, often takes many years and can vary substantially based upon the type, complexity and novelty of the products involved. Approval policies or regulations may change and the FDA has substantial discretion in the pharmaceutical approval process, including the ability to delay, limit or deny approval of a product candidate for many reasons. In addition, the FDA may require post-approval clinical trials or studies which also may be costly. The FDA approval for a limited indication or approval with required warning language, such as a boxed warning, could significantly impact our ability to successfully market our product candidates. Finally, the FDA may require adoption of a Risk Evaluation and Mitigation Strategy (REMS) requiring prescriber training, post-market registries, or otherwise restricting the marketing and dissemination of these products. Despite the time and expense invested in clinical development of product candidates, regulatory approval is never guaranteed. Assuming successful clinical development, we intend to seek product approvals in countries outside the United States. As a result, we would be subject to regulation by the European Medicines Agency (“EMA”), as well as the other regulatory agencies in many of these countries.

Approval procedures vary among countries and can involve additional product testing and additional administrative review periods. The time required to obtain approval in other countries might differ from that required to obtain FDA approval. Regulatory approval in one country does not ensure regulatory approval in another, but a failure or delay in obtaining regulatory approval in one country may negatively impact the regulatory process in others. As in the United States, the regulatory approval process in Europe and in other countries is a lengthy and challenging process. The FDA, EMA and any of the applicable European and other regulatory bodies can delay, limit or deny approval of a product candidate for many reasons, including:

- the FDA or comparable foreign regulatory authorities may disagree with the design or implementation of our clinical trials;
- we may be unable to demonstrate to the satisfaction of the FDA or comparable foreign regulatory authorities that a product candidate is safe and effective for any indication;
- the FDA may not accept clinical data from trials which are conducted by individual investigators or in countries where the standard of care is potentially different from the United States;
- the results of clinical trials may not meet the level of statistical significance required by the FDA or comparable foreign regulatory authorities for approval;
- we may be unable to demonstrate that a product candidate's clinical and other benefits outweigh its safety risks;
- the FDA or comparable foreign regulatory authorities may disagree with our interpretation of data from preclinical studies or clinical trials;
- the data collected from clinical trials of our product candidates may not be sufficient to support the submission of a BLA or other submission or to obtain regulatory approval in the United States or elsewhere;
- the FDA or comparable foreign regulatory authorities may fail to approve the manufacturing processes or facilities of third-party manufacturers with which we or our collaborators contract for clinical and commercial supplies; or
- the approval policies or regulations of the FDA or comparable foreign regulatory authorities may significantly change in a manner rendering our clinical data insufficient for approval.

In addition, recent events raising questions about the safety of certain marketed pharmaceuticals may result in increased cautiousness by the FDA and other regulatory authorities in reviewing new pharmaceuticals based on safety, efficacy or other regulatory considerations and may result in significant delays in obtaining regulatory approvals. Regulatory approvals for our product candidates may not be obtained without lengthy delays, if at all. Any delay in obtaining, or inability to obtain, applicable regulatory approvals would prevent us from commercializing our product candidates.

***Any product candidate we advance into clinical trials may cause unacceptable adverse events or have other properties that may delay or prevent their regulatory approval or commercialization or limit their commercial potential.***

Unacceptable adverse events caused by any of our product candidates that we take into clinical trials could cause either us or regulatory authorities to interrupt, delay or halt clinical trials and could result in the denial of regulatory approval by the FDA or other regulatory authorities for any or all targeted indications. This, in turn, could prevent us from commercializing the affected product candidate and generating revenues from its sale.

We have not yet completed testing of any of our product candidates for the treatment of the indications for which we intend to seek product approval in humans, and we currently do not know the extent that adverse events, if any, will be observed in patients who receive any of its product candidates. To date, clinical trials using ublituximab and our other product candidates have demonstrated a toxicity profile that was deemed acceptable by the investigators performing such studies. Such interpretation may not be shared by future investigators or by the FDA and in the case of ublituximab, even if deemed acceptable for oncology applications, like the completed clinical trial, it may not be acceptable for diseases outside the oncology setting, and likewise for any other product candidates we may develop. Additionally, the severity, duration and incidence of adverse events may increase in larger study populations. With respect to TGTX-1101, the toxicity when manufactured under different conditions is not known, nor is the toxicity of transgenically derived ublituximab, and it is possible that additional and/or different adverse events may appear upon the human use of those formulations and those adverse events may arise with greater frequency, intensity and duration than in the current formulation. If any of our product candidates cause unacceptable adverse events in clinical trials, we may not be able to obtain marketing approval and generate revenues from its sale.

If any of our product candidates receives marketing approval and we, or others, later identify unacceptable adverse events caused by the product, a number of significant negative consequences could result, including:

- regulatory authorities may withdraw their approval of the affected product;
- regulatory authorities may require a more significant clinical benefit for approval to offset the risk;
- regulatory authorities may require the addition of labeling statements that could diminish the usage of the product or otherwise limit the commercial success of the affected product;
- we may be required to change the way the product is administered, conduct additional clinical trials or change the labeling of the product;
- we may choose to discontinue sale of the product;
- we could be sued and held liable for harm caused to patients;
- we may not be able to enter into collaboration agreements on acceptable terms and execute on our business model; and
- our reputation may suffer.

Any one or a combination of these events could prevent us from obtaining regulatory approval and achieving or maintaining market acceptance of the affected product or could substantially increase the costs and expenses of commercializing the affected product, which in turn could delay or prevent us from generating any revenues from the sale of the affected product.

***We may experience delays in the commencement of our clinical trials or in the receipt of data from preclinical and clinical trials conducted by third parties, which could result in increased costs and delay its ability to pursue regulatory approval.***

Delays in the commencement of clinical trials and delays in the receipt of data from preclinical or clinical trials conducted by third parties could significantly impact our product development costs. Before we can initiate clinical trials in the United States for our product candidates, we need to submit the results of preclinical testing, usually in animals, to the FDA as part of an IND, along with other information including information about product chemistry, manufacturing and controls and its proposed clinical trial protocol for its product candidates.

We currently plan to rely on preclinical and clinical trial data from third parties for the IND submissions transgenically derived ublituximab. If receipt of that data is delayed for any reason, including reasons outside of our control, it will delay our plans for IND filings, and clinical trial plans. This, in turn, will delay our ability to make subsequent regulatory filings and ultimately, to commercialize our products if regulatory approval is obtained. If those third parties do not make this data available to us, we will likely, on our own, have to develop all the necessary preclinical and clinical data which will lead to additional delays and increase the costs of our development of our product candidates.

Before we can test TGTX-1101 or any other product candidate in human clinical trials the product candidate enters the preclinical testing stage. Preclinical tests include laboratory evaluations of product chemistry, toxicity and formulation, as well as animal studies to assess the potential safety and activity of the pharmaceutical product candidate. The conduct of the preclinical tests must comply with federal regulations and requirements including good laboratory practices (GLP).

We must submit the results of the preclinical tests, together with manufacturing information, analytical data, any available clinical data or literature and a proposed clinical protocol, to the FDA as part of the IND. The IND automatically becomes effective 30 days after receipt by the FDA, unless the FDA places the IND on a clinical hold within that 30-day time period. In such a case, the Company and the FDA must resolve any outstanding concerns before the clinical trials can begin. The FDA may also impose clinical holds on a product candidate at any time before or during clinical trials due to safety concerns or non-compliance. Accordingly, we cannot be sure that submission of an IND will result in the FDA allowing clinical trials to begin, or that, once begun, issues will not arise that suspend or terminate such clinical trial.

The FDA may require that we conduct additional preclinical testing for any product candidate before it allows us to initiate the clinical testing under any IND, which may lead to additional delays and increase the costs of our preclinical development.

Even assuming an active IND for a product candidate, we do not know whether our planned clinical trials for any such product candidate will begin on time, or at all. The commencement of clinical trials can be delayed for a variety of reasons, including delays in:

- obtaining regulatory clearance to commence a clinical trial;
- identifying, recruiting and training suitable clinical investigators;
- reaching agreement on acceptable terms with prospective contract research organizations (“CROs”) and trial sites, the terms of which can be subject to extensive negotiation, may be subject to modification from time to time and may vary significantly among different CROs and trial sites;
- obtaining sufficient quantities of a product candidate for use in clinical trials;
- obtaining institutional review board (“IRB”) or ethics committee approval to conduct a clinical trial at a prospective site;
- identifying, recruiting and enrolling patients to participate in a clinical trial; and
- retaining patients who have initiated a clinical trial but may withdraw due to adverse events from the therapy, insufficient efficacy, fatigue with the clinical trial process or personal issues.

Any delays in the commencement of our clinical trials will delay our ability to pursue regulatory approval for our product candidates. In addition, many of the factors that cause, or lead to, a delay in the commencement of clinical trials may also ultimately lead to the denial of regulatory approval of a product candidate.

***Delays in the completion of clinical testing could result in increased costs to the Company and delay our ability to generate product revenues.***

Once a clinical trial has begun, patient recruitment and enrollment may be slower than we anticipate. Clinical trials may also be delayed as a result of ambiguous or negative interim results. Further, a clinical trial may be suspended or terminated by us, an IRB, an ethics committee or a Data Monitoring Committee overseeing the clinical trial, any of our clinical trial sites with respect to that site or the FDA or other regulatory authorities due to a number of factors, including:

- failure to conduct the clinical trial in accordance with regulatory requirements or our clinical protocols;
- inspection of the clinical trial operations or clinical trial site by the FDA or other regulatory authorities resulting in the imposition of a clinical hold;
- unforeseen safety issues or any determination that the clinical trial presents unacceptable health risks; and
- lack of adequate funding to continue the clinical trial.

Changes in regulatory requirements and guidance also may occur and we may need to amend clinical trial protocols to reflect these changes. Amendments may require us to resubmit our clinical trial protocols to IRBs for re-examination, which may impact the costs, timing and successful completion of a clinical trial. If we experience delays in the completion of, or if we must terminate, any clinical trial of any product candidate that we advance into clinical trials, our ability to obtain regulatory approval for that product candidate will be delayed and the commercial prospects, if any, for the product candidate may be harmed. In addition, many of these factors may also ultimately lead to the denial of regulatory approval of a product candidate. Even if we ultimately commercialize any of our product candidates, other therapies for the same indications may have been introduced to the market during the period we have been delayed and such therapies may have established a competitive advantage over our product candidates.

***We intend to rely on third parties to help conduct our planned clinical trials. If these third parties do not meet their deadlines or otherwise conduct the trials as required, we may not be able to obtain regulatory approval for or commercialize our product candidates when expected or at all.***

We intend to use CROs to assist in the conduct of our planned clinical trials and will rely upon medical institutions, clinical investigators and contract laboratories to conduct our trials in accordance with our clinical protocols. Our future CROs, investigators and other third parties may play a significant role in the conduct of these trials and the subsequent collection and analysis of data from the clinical trials.

There is no guarantee that any CROs, investigators and other third parties will devote adequate time and resources to our clinical trials or perform as contractually required. If any third parties upon whom we rely for administration and conduct of our clinical trials fail to meet expected deadlines, fail to adhere to its clinical protocols or otherwise perform in a substandard manner, our clinical trials may be extended, delayed or terminated, and we may not be able to commercialize our product candidates.

If any of our clinical trial sites terminate for any reason, we may experience the loss of follow-up information on patients enrolled in our ongoing clinical trials unless we are able to transfer the care of those patients to another qualified clinical trial site. In addition, principal investigators for our clinical trials may serve as scientific advisors or consultants to us from time to time and receive cash or equity compensation in connection with such services. If these relationships and any related compensation result in perceived or actual conflicts of interest, the integrity of the data generated at the applicable clinical trial site may be jeopardized.

***As the product candidates for which we hold an exclusive license agreement, are still under development; manufacturing and process improvements implemented in the production of ublituximab, or any of our product candidates, may affect their ultimate activity or function.***

Ublituximab is in the initial stages of development and is currently manufactured in small batches for use in pre-clinical and clinical studies. Process improvements implemented to date have, and process improvements in the future may change the activity of the antibody, which may affect the safety and efficacy of the product. No assurance can be given that the material manufactured from any of the optimized processes will perform comparably to ublituximab as manufactured to date and used in currently available pre-clinical data and in early clinical trials reported in this or any previous filing. Additionally, future clinical trial results will be subject to the same level of uncertainty if, following such trials, additional process improvements are made, including without limitation, the introduction of transgenically derived ublituximab.

***If we fail to adequately understand and comply with the local laws and customs as we expand into new international markets, these operations may incur losses or otherwise adversely affect our business and results of operations.***

We expect to operate a portion of our business in certain countries through subsidiaries or through supply and marketing arrangements. In those countries, where we have limited experience in operating subsidiaries and in reviewing equity investees, we will be subject to additional risks related to complying with a wide variety of national and local laws, including restrictions on the import and export of certain intermediates, drugs, technologies and multiple and possibly overlapping tax structures. In addition, we may face competition in certain countries from companies that may have more experience with operations in such countries or with international operations generally. We may also face difficulties integrating new facilities in different countries into our existing operations, as well as integrating employees hired in different countries into our existing corporate culture. If we do not effectively manage our operations in these subsidiaries and review equity investees effectively, or if we fail to manage our alliances, we may lose money in these countries and it may adversely affect our business and results of our operations.

***If our competitors develop treatments for the target indications for which any of our product candidates may be approved, that are approved more quickly, marketed more effectively or demonstrated to be more effective than our product candidates, our commercial opportunity will be reduced or eliminated.***

We operate in a highly competitive segment of the biotechnology and biopharmaceutical market. We face competition from numerous sources, including commercial pharmaceutical and biotechnology enterprises, academic institutions, government agencies, and private and public research institutions. Many of our competitors have significantly greater financial, product development, manufacturing and marketing resources. Large pharmaceutical companies have extensive experience in clinical testing and obtaining regulatory approval for drugs. Additionally, many universities and private and public research institutes are active in cancer research, some in direct competition with us. We may also compete with these organizations to recruit scientists and clinical development personnel. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies.

The cancer indications for which we are developing our product, TGTX-1101, have a number of established therapies with which we will compete. Most major pharmaceutical companies and many biotechnology companies are aggressively pursuing new cancer development programs for the treatment of NHL, CLL, and other B-cell proliferative malignancies, including both therapies with traditional, as well as novel, mechanisms of action.

If approved, we expect TGTX-1101 to compete directly with Roche Group's Rituxan® (Rituximab), Spectrum Pharmaceutical's Zevalin® (Y<sup>90</sup>-Ibritumomab Tiuxetan), GlaxoSmithKline's Bexxar® (I<sup>131</sup>-Tositumomab), Dr. Reddy's Laboratories' Reditux®, and Genmab and GlaxoSmithKline's Arzerra® (Ofatumomab) among others, each of which is currently approved for the treatment of various diseases including NHL and CLL. New developments, including the development of other pharmaceutical technologies and methods of treating disease, occur in the pharmaceutical and life sciences industries at a rapid pace.

These developments may render our product candidates obsolete or noncompetitive. Compared to us, many of our potential competitors have substantially greater:

- research and development resources, including personnel and technology;
- regulatory experience;
- pharmaceutical development, clinical trial and pharmaceutical commercialization experience;
- experience and expertise in exploitation of intellectual property rights; and
- capital resources.

As a result of these factors, our competitors may obtain regulatory approval of their products more rapidly than us or may obtain patent protection or other intellectual property rights that limit our ability to develop or commercialize our product candidates. Our competitors may also develop products for the treatment of lymphoma or CLL that are more effective, better tolerated, more useful and less costly than ours and may also be more successful in manufacturing and marketing their products. Our competitors may succeed in obtaining approvals from the FDA and foreign regulatory authorities for their product candidates sooner than we do for our products.

We will also face competition from these third parties in recruiting and retaining qualified personnel, establishing clinical trial sites and enrolling patients for clinical trials and in identifying and in-licensing new product candidates.

***We rely completely on third parties to manufacture our preclinical and clinical pharmaceutical supplies and we intend to rely on third parties to produce commercial supplies of any approved product candidate, and our commercialization of any of our product candidates could be stopped, delayed or made less profitable if those third parties fail to obtain approval of the FDA, fail to provide us with sufficient quantities of pharmaceutical product or fail to do so at acceptable quality levels or prices.***

The facilities used by our contract manufacturers to manufacture our product candidates must be approved by the FDA pursuant to inspections that will be conducted only after we submit a BLA or NDA to the FDA, if at all. We do not control the manufacturing process of our product candidates and are completely dependent on our contract manufacturing partners for compliance with the FDA's requirements for manufacture of finished pharmaceutical products (good manufacturing practices, GMP). If our contract manufacturers cannot successfully manufacture material that conforms to our specifications and the FDA's strict regulatory requirements of safety, purity and potency, we will not be able to secure and/or maintain FDA approval for our product candidates. In addition, we have no control over the ability of our contract manufacturers to maintain adequate quality control, quality assurance and qualified personnel. If our contract manufacturers cannot meet FDA standards, we may need to find alternative manufacturing facilities, which would significantly impact our ability to develop, obtain regulatory approval for or market our product candidates. Our partner, LFB, is currently exploring long-term, scalable contract manufacturers for ublituximab and/or the build-out of such capabilities. No assurance can be given that a long-term, scalable manufacturer can be identified or that they can make clinical and commercial supplies of ublituximab at an appropriate scale and cost to make it commercially feasible. If they are unable to do so, it could have a material adverse impact on our business. If that is the case, we may need to rely exclusively on transgenically manufactured material, which may introduce additional risk and uncertainty the extent of which cannot be fully determined today.

In addition, the Company does not have the capability to package finished products for distribution to hospitals and other customers. Prior to commercial launch, we intend to enter into agreements with one or more alternate fill/finish pharmaceutical product suppliers so that we can ensure proper supply chain management once we are authorized to make commercial sales of our product candidates. If we receive marketing approval from the FDA, we intend to sell pharmaceutical product finished and packaged by such suppliers. We have not entered into long-term agreements with our current contract manufacturers or with any fill/finish suppliers, and though we intend to do so prior to commercial launch of our product candidates in order to ensure that we maintain adequate supplies of finished product, we may be unable to enter into such an agreement or do so on commercially reasonable terms, which could have a material adverse impact upon our business.

In most cases, our manufacturing partners are single source suppliers. It is expected that our manufacturing partners will be sole source suppliers from single site locations for the foreseeable future. Given this, any disruption of supply from these partners could have a material, long-term impact on our ability to supply products for clinical trials or commercial sale. Additionally, the proprietary transgenic technology that supports the manufacture of transgenically derived ublituximab is not easily transferrable, if at all, and it is expected that GTC will be the sole supplier of transgenically derived ublituximab at a single site for the foreseeable future. If the Company's suppliers do not deliver sufficient quantities of ublituximab on a timely basis, or at all, and in accordance with applicable specifications, there could be a significant interruption of our supply of ublituximab, which would adversely affect clinical development and commercialization of the product.

***Clinical trials of our transgenically produced products may be unsuccessful or delayed, which may prevent us from meeting our anticipated development timeline.***

The Company and its collaborators must demonstrate through preclinical and clinical trials that our transgenically produced products are safe and effective for use in humans. Clinical trials are expensive and may take several years. Several factors could prevent or delay completion of these trials, including an inability to enroll the required number of patients or demonstrate adequately the safety or efficacy of the product for humans. If safety concerns develop, regulatory authorities could stop or delay trials of transgenically derived ublituximab or any other product candidate evaluated by the Company. Furthermore, the results from early clinical trials are often not predictive of results in later clinical trials.

To our knowledge, Pharming Group N.V. and GTC Biotherapeutics, Inc. are the only other entities to have completed human clinical trials sufficient to support the filing for regulatory approval of a product produced from a transgenic mammal. If we are unable to complete all clinical trials and to satisfy any requirements that may be required by the FDA or the EMA for approval of transgenically derived ublituximab, it could have a material adverse effect on our business and operations.

***Any transgenically produced products for which we obtain regulatory approval will be subject to continuing review and extensive regulatory requirements, which could affect their manufacture and marketing.***

If and when the FDA or other foreign agencies approve our transgenically produced products under development, the manufacture and marketing of these products will be subject to continuing regulation and product approvals may be withdrawn if problems occur after initial approval. Post-approval regulation includes compliance with current Quality Systems Regulations and Good Manufacturing Practices, (“QSR/GMP”), adverse event reporting requirements and prohibitions on promoting a product for unapproved uses. In addition, the FDA could require us to conduct post-approval clinical trials or studies. We will also be required to obtain additional approvals for any significant alterations in the product’s labeling or manufacturing process. Enforcement actions resulting from failure to comply with QSR/GMP requirements could result in fines, suspensions of approvals, recalls of products, operating restrictions and criminal prosecutions, and affect the manufacture and marketing of our transgenically produced products. The FDA or other regulatory agencies could withdraw a previously approved product from the market upon receipt of newly discovered information, including a failure to comply with regulatory requirements and the occurrence of unanticipated problems with products, including adverse events, manufacturing and quality problems, following approval. Any of these withdrawals could adversely affect our operating results.

***The Company may face public concerns about genetic engineering in animals.***

The activities of the Company’s development and manufacturing affiliate involve genetic engineering in animals. The success of our potential commercial products will depend in part on public acceptance of the use of genetic engineering. Public attitudes may be influenced by claims and perceptions that these types of activities are unsafe and our products may not gain the acceptance of the public or the medical community. Negative public reaction to genetic engineering activities in general could result in greater restrictive legislation and regulations involving nuclear transfer and other methodologies which could impede our ability to conduct our business efficiently, delay preclinical studies or future clinical trials, or prevent us or our partners from obtaining regulatory approvals or commercializing transgenically produced products.

***Our transgenically produced products may be subject to technology risks that may restrict or prevent their development and commercialization.***

Developing products based on transgenic technology is subject to significant development risks. Each DNA construct is unique and it is possible that it might not be expressed in the transgenic animal’s milk at a level that is commercially viable. Purifying the recombinant protein out of the milk to use as a biotherapeutic may be too difficult to be commercially feasible. In addition, production of the recombinant protein may have negative effects on the health of either the mammary gland or more systematically on the animal as a whole. This would compromise the ability of the animal to produce the recombinant protein. Directing the mammary gland to produce additional proteins in the milk could negatively affect lactation, thereby shutting down milk production. The mammary gland may also modify a protein in such a manner that it is non-functional or harmful in humans. It is also possible that there may be disease agents present in the animals that would prevent the use of products derived from these animals. If an as yet unknown disease was identified that could not be effectively mitigated, government agencies may confiscate or destroy the animals, or prevent the utilization of their milk. Any of these governmental actions would prevent the use of the recombinant proteins and may result in a material adverse effect on our business.



***We may not be able to recover from any catastrophic event affecting our suppliers' animals or facilities.***

While our suppliers have measures in place to minimize and recover from catastrophic events that may substantially destroy their animal herd(s), these measures may not be adequate to recover production processes quickly enough to support critical timelines, collaborator needs, or market demands. These catastrophic events may include, but are not limited to, animal diseases that breach biosecurity measures or weather events such as tornadoes, earthquakes or fires. In addition, these catastrophic events may render some or all of the products at the affected facilities unusable.

***We currently have no marketing and sales organization and no experience in marketing pharmaceutical products. If we are unable to establish sales and marketing capabilities or fail to enter into agreements with third parties to market and sell any products we may develop, we may not be able to effectively market and sell our products and generate product revenue.***

We do not currently have the infrastructure for the sales, marketing and distribution of our biotechnology products, and we must build this infrastructure or make arrangements with third parties to perform these functions in order to commercialize our products. We plan to either develop internally or enter into collaborations or other commercial arrangements to develop further, promote and sell all or a portion of our product candidates.

The establishment and development of a sales force, either by us or jointly with a development partner, or the establishment of a contract sales force to market any products we may develop will be expensive and time-consuming and could delay any product launch, and we cannot be certain that we or our development partners would be able to successfully develop this capability. If the Company, or its development partners, are unable to establish sales and marketing capability or any other non-technical capabilities necessary to commercialize any products we may develop, we will need to contract with third parties to market and sell such products. We currently possess limited resources and may not be successful in establishing our own internal sales force or in establishing arrangements with third parties on acceptable terms, if at all.

***If any product candidate that the Company successfully develops does not achieve broad market acceptance among physicians, patients, healthcare payors, and the medical community, the revenues that we generate from its sales will be limited.***

Even if our product candidates receive regulatory approval, they may not gain market acceptance among physicians, patients, healthcare payors, and the medical community. Coverage and reimbursement of our product candidates by third-party payors, including government payors, generally is also necessary for commercial success. The degree of market acceptance of any of our approved products will depend on a number of factors, including:

- the efficacy and safety as demonstrated in clinical trials;
- the clinical indications for which the product is approved;
- acceptance by physicians, major operators of cancer clinics and patients of the product as a safe and effective treatment;
- the potential and perceived advantages of product candidates over alternative treatments;
- the safety of product candidates seen in a broader patient group, including its use outside the approved indications;
- the cost of treatment in relation to alternative treatments;
- the availability of adequate reimbursement and pricing by third parties and government authorities;
- relative convenience and ease of administration;
- the prevalence and severity of adverse events; and
- the effectiveness of our sales and marketing efforts.

If any product candidate is approved but does not achieve an adequate level of acceptance by physicians, hospitals, healthcare payors and patients, we may not generate sufficient revenue from these products and we may not become or remain profitable.

***If product liability lawsuits are brought against the Company, we may incur substantial liabilities and may be required to limit commercialization of our product candidates.***

We face an inherent risk of product liability exposure related to the testing of our product candidates in human clinical trials, and will face an even greater risk if we sell our product candidates commercially. An individual may bring a liability claim against the Company if one of our product candidates causes, or merely appears to have caused, an injury. If we cannot successfully defend our self against product liability claims, we will incur substantial liabilities. Regardless of merit or eventual outcome, liability claims may result in:

- decreased demand for our product candidates;
- impairment to our business reputation;
- withdrawal of clinical trial participants;
- costs of related litigation;
- distraction of management’s attention from our primary business;
- substantial monetary awards to patients or other claimants;
- the inability to commercialize our product candidates; and
- loss of revenues.

We do not currently carry product liability insurance. However, we intend to obtain product liability insurance coverage for our clinical trials prior to the commencement of any such trials. Further, we intend to expand our insurance coverage to include the sale of commercial products if marketing approval is obtained for any of our product candidates. However, we may be unable to obtain this product liability insurance on commercially reasonable terms and with insurance coverage that will be adequate to satisfy any liability that may arise. On occasion, large judgments have been awarded in class action or individual lawsuits relating to marketed pharmaceuticals. A successful product liability claim or series of claims brought against the Company could cause its stock price to decline and, if judgments exceed our insurance coverage, could decrease our cash and adversely affect our business.

***Reimbursement may be limited or unavailable in certain market segments for our product candidates, which could make it difficult for us to sell our products profitably.***

We intend to seek approval to market our future products in both the United States and in countries and territories outside the United States. If we obtain approval in one or more foreign countries, we will be subject to rules and regulations in those countries relating to our product. In some foreign countries, particularly in the European Union, the pricing of prescription pharmaceuticals and biologics is subject to governmental control. In these countries, pricing negotiations with governmental authorities can take considerable time after the receipt of marketing approval for a product candidate. In addition, market acceptance and sales of our product candidates will depend significantly on the availability of adequate coverage and reimbursement from third-party payors for any of our product candidates and may be affected by existing and future healthcare reform measures.

Government authorities and third-party payors, such as private health insurers and health maintenance organizations, decide which pharmaceuticals they will pay for and establish reimbursement levels. Reimbursement by a third-party payor may depend upon a number of factors, including the third-party payor’s determination that use of a product is:

- a covered benefit under its health plan;
- safe, effective and medically necessary;
- appropriate for the specific patient;
- cost-effective; and
- neither experimental nor investigational.

Obtaining coverage and reimbursement approval for a product from a government or other third-party payor is a time consuming and costly process that could require that we provide supporting scientific, clinical and cost-effectiveness data for the use of our products to the payor. We may not be able to provide data sufficient to gain acceptance with respect to coverage and reimbursement. If reimbursement of our future products is unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels, we may be unable to achieve or sustain profitability.

In both the United States and certain foreign countries, there have been a number of legislative and regulatory changes to the healthcare system that could impact our ability to sell our products profitably. In particular, the Medicare Modernization Act of 2003 revised the payment methodology for many products reimbursed by Medicare, resulting in lower rates of reimbursement for many types of drugs, and added a prescription drug benefit to the Medicare program that involves commercial plans negotiating drug prices for their members. Since 2003, there have been a number of other legislative and regulatory changes to the coverage and reimbursement landscape for pharmaceuticals. Most recently, the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010, collectively, the “Affordable Care Act,” was enacted. The Affordable Care Act contains a number of provisions, including those governing enrollment in federal healthcare programs, the increased use of comparative effectiveness research on healthcare products, reimbursement and fraud and abuse changes, and a new regulatory pathway for the approval of biosimilar biological products, all of which will impact existing government healthcare programs and will result in the development of new programs. An expansion in the government’s role in the U.S. healthcare industry may further lower rates of reimbursement for pharmaceutical and biotechnology products.

There have been, and likely will continue to be, legislative and regulatory proposals at the federal and state levels directed at broadening the availability of healthcare and containing or lowering the cost of healthcare products and services. The Company cannot predict the initiatives that may be adopted in the future. The continuing efforts of the government, insurance companies, managed care organizations and other payors of healthcare services to contain or reduce costs of healthcare may adversely affect:

- the demand for any products for which we may obtain regulatory approval;
- our ability to set a price that we believe is fair for our products;
- our ability to generate revenues and achieve or maintain profitability;
- the level of taxes that the Company is required to pay; and
- the availability of capital.

In addition, governments may impose price controls, which may adversely affect our future profitability.

***The Company will need to increase the size of its organization and the scope of our outside vendor relationships, and we may experience difficulties in managing this growth.***

As of March 1, 2012, the Company has 5 full and part time employees. We will need to expand our managerial, operational, financial and other resources in order to manage and fund our operations and clinical trials, continue research and development activities, and commercialize our product candidates. Our management and scientific personnel, systems and facilities currently in place may not be adequate to support our future growth. Our need to effectively manage our operations, growth, and various projects requires that we:

- manage our clinical trials effectively;
- manage our internal development efforts effectively while carrying out our contractual obligations to licensors, contractors and other third parties;
- continue to improve our operational, financial and management controls and reporting systems and procedures; and
- attract and retain sufficient numbers of talented employees.

We may utilize the services of outside vendors or consultants to perform tasks including clinical trial management, statistics and analysis, regulatory affairs, formulation development and other pharmaceutical development functions. Our growth strategy may also entail expanding our group of contractors or consultants to implement these tasks going forward. Because we rely on a substantial number of consultants, effectively outsourcing many key functions of our business, we will need to be able to effectively manage these consultants to ensure that they successfully carry out their contractual obligations and meet expected deadlines. However, if we are unable to effectively manage our outsourced activities or if the quality or accuracy of the services provided by consultants is compromised for any reason, our clinical trials may be extended, delayed or terminated, and we may not be able to obtain regulatory approval for our product candidates or otherwise advance its business. There can be no assurance that we will be able to manage our existing consultants or find other competent outside contractors and consultants on economically reasonable terms, or at all. If the Company is not able to effectively expand its organization by hiring new employees and expanding its groups of consultants and contractors, we may be unable to successfully implement the tasks necessary to further develop and commercialize our product candidates and, accordingly, may not achieve our research, development and commercialization goals.

***If the Company fails to attract and keep key management and clinical development personnel, we may be unable to successfully develop or commercialize our product candidates.***

We will need to expand and effectively manage our managerial, operational, financial and other resources in order to successfully pursue our clinical development and commercialization efforts for our product candidates and future product candidates. We are highly dependent on the development, regulatory, commercial and financial expertise of the members of our senior management. The loss of the services of any of our senior management could delay or prevent the further development and potential commercialization of our product candidates and, if we are not successful in finding suitable replacements, could harm our business. We do not maintain “key man” insurance policies on the lives of these individuals. We will need to hire additional personnel as the Company continues to expand its manufacturing, research and development activities.

Our success depends on our continued ability to attract, retain and motivate highly qualified management and scientific personnel and we may not be able to do so in the future due to the intense competition for qualified personnel among biotechnology, pharmaceutical and other businesses. Our industry has experienced a high rate of turnover of management personnel in recent years. If the Company is not able to attract and retain the necessary personnel to accomplish its business objectives, we may experience constraints that will impede significantly the achievement of our development objectives, our ability to raise additional capital, and our ability to implement our business strategy.

***If the Company fails to comply with healthcare regulations, it could face substantial penalties and its business, operations and financial condition could be adversely affected.***

In addition to FDA restrictions on the marketing of pharmaceutical and biotechnology products, several other types of state and federal laws have been applied to restrict certain marketing practices in the pharmaceutical and medical device industries in recent years, as well as consulting or other service agreements with physicians or other potential referral sources. These laws include anti-kickback statutes and false claims statutes that prohibit, among other things, knowingly and willfully offering, paying, soliciting or receiving remuneration to induce, or, in return for, purchasing, leasing, ordering or arranging for the purchase, lease or order of any healthcare item or service reimbursable under Medicare, Medicaid or other federally-financed healthcare programs, and knowingly presenting, or causing to be presented, a false claim for payment to the federal government, or knowingly making, or causing to be made, a false statement to get a false claim paid. The majority of states also have statutes or regulations similar to the federal anti-kickback law and false claims laws, which apply to items and services reimbursed under Medicaid and other state programs, or, in several states, apply regardless of the payor. Although there are a number of statutory exemptions and regulatory safe harbors protecting certain common activities from prosecution, the exemptions and safe harbors are drawn narrowly, and any practices we adopt may not, in all cases, meet all of the criteria for safe harbor protection from anti-kickback liability. Sanctions under these federal and state laws may include civil monetary penalties, exclusion of a manufacturer's products from reimbursement under government programs, criminal fines and imprisonment. Any challenge to its business practices under these laws could have a material adverse effect on our business, financial condition, and results of operations.

***The Company uses biological and hazardous materials, and any claims relating to improper handling, storage or disposal of these materials could be time consuming or costly.***

We use hazardous materials, including chemicals and biological agents and compounds, which could be dangerous to human health and safety or the environment. Our operations also produce hazardous waste products. Federal, state and local laws and regulations govern the use, generation, manufacture, storage, handling and disposal of these materials and wastes. Compliance with applicable environmental laws and regulations may be expensive, and current or future environmental laws and regulations may impair our pharmaceutical development efforts.

In addition, we cannot entirely eliminate the risk of accidental injury or contamination from these materials or wastes. If one of our employees was accidentally injured from the use, storage, handling or disposal of these materials or wastes, the medical costs related to his or her treatment would be covered by our workers' compensation insurance policy. However, we do not carry specific biological or hazardous waste insurance coverage and our property and casualty and general liability insurance policies specifically exclude coverage for damages and fines arising from biological or hazardous waste exposure or contamination. Accordingly, in the event of contamination or injury, we could be held liable for damages or penalized with fines in an amount exceeding our resources, and our clinical trials or regulatory approvals could be suspended, or operations otherwise affected.

***All product candidate development timelines and projections in this filing are based on the assumption of further financing.***

The timelines and projections in this filing are predicated upon the assumption that we will raise additional financing in the future to continue the development of our product candidates. In the event the Company does not successfully raise subsequent financing, our product development activities will necessarily be curtailed commensurate with the magnitude of the shortfall. If our product development activities are slowed or stopped, we would be unable to meet the timelines and projections outlined in this filing. Failure to progress our product candidates as anticipated will have a negative effect on our business, future prospects, and ability to obtain further financing on acceptable terms (if at all), and the value of the enterprise.

## **Risks Relating to Acquisitions**

***Acquisitions, investments and strategic alliances that we may make in the future may use significant resources, result in disruptions to our business or distractions of our management, may not proceed as planned, and could expose us to unforeseen liabilities.***

We may seek to expand our business through the acquisition of, investments in and strategic alliances with companies, technologies, products, and services, such as the Exchange Transaction between the Company and TG Therapeutics. Acquisitions, investments and strategic alliances involve a number of special problems and risks, including, but not limited to:

- difficulty integrating acquired technologies, products, services, operations and personnel with the existing businesses;
- diversion of management's attention in connection with both negotiating the acquisitions and integrating the businesses;
- strain on managerial and operational resources as management tries to oversee larger operations;
- difficulty implementing and maintaining effective internal control over financial reporting at businesses that we acquire, particularly if they are not located near our existing operations;
- exposure to unforeseen liabilities of acquired companies;
- potential costly and time-consuming litigation, including stockholder lawsuits;
- potential issuance of securities to equity holders of the company being acquired with rights that are superior to the rights of holders of our common stock, or which may have a dilutive effect on our stockholders;
- risk of loss of invested capital;
- the need to incur additional debt or use cash; and
- the requirement to record potentially significant additional future operating costs for the amortization of intangible assets.

As a result of these or other problems and risks, businesses we acquire may not produce the revenues, earnings, or business synergies that we anticipated, and acquired products, services, or technologies might not perform as we expected. As a result, we may incur higher costs and realize lower revenues than we had anticipated. We may not be able to successfully address these problems and we cannot assure you that the acquisitions will be successfully identified and completed or that, if acquisitions are completed, the acquired businesses, products, services, or technologies will generate sufficient revenue to offset the associated costs or other negative effects on our business.

Any of these risks can be greater if an acquisition is large relative to our size. Failure to effectively manage our growth through acquisitions could adversely affect our growth prospects, business, results of operations, financial condition and cash flows.

## **Risks Relating to the Company's Intellectual Property**

***The Company's success depends upon our ability to protect our intellectual property and proprietary technologies, and the intellectual property protection for our product candidates depends significantly on third parties.***

Our commercial success depends on obtaining and maintaining patent protection and trade secret protection for our product candidates and their formulations and uses, as well as successfully defending these patents against third-party challenges. If LFB Biotechnologies or any of our other licensors fails to appropriately prosecute and maintain patent protection for these product candidates, our ability to develop and commercialize these product candidates may be adversely affected and we may not be able to prevent competitors from making, using and selling competing products. This failure to properly protect the intellectual property rights relating to these product candidates could have a material adverse effect on our financial condition and results of operations.

The patent application process is subject to numerous risks and uncertainties, and there can be no assurance that we or our partners will be successful in protecting our product candidates by obtaining and defending patents. These risks and uncertainties include the following:

- the patent applications that we or our partners file may not result in any patents being issued;
- patents that may be issued or in-licensed may be challenged, invalidated, modified, revoked or circumvented, or otherwise may not provide any competitive advantage;
- as of March 16, 2013, the U.S. will convert from a "first to invent" to a "first to file" system. After this time if we do not win the filing race, we will not be entitled to inventive priority;
- our competitors, many of which have substantially greater resources than we do, and many of which have made significant investments in competing technologies, may seek, or may already have obtained, patents that will limit, interfere with, or eliminate its ability to make, use, and sell our potential products either in the United States or in international markets;
- there may be significant pressure on the U.S. government and other international governmental bodies to limit the scope of patent protection both inside and outside the United States for disease treatments that prove successful as a matter of public policy regarding worldwide health concerns; and
- countries other than the United States may have less restrictive patent laws than those upheld by United States courts, allowing foreign competitors the ability to exploit these laws to create, develop, and market competing products.

In addition to patents, we and our partners also rely on trade secrets and proprietary know-how. Although we have taken steps to protect our trade secrets and unpatented know-how, including entering into confidentiality agreements with third parties, and confidential information and inventions agreements with employees, consultants and advisors, third parties may still obtain this information or we may be unable to protect its rights. If any of these events occurs, or we otherwise lose protection for our trade secrets or proprietary know-how, the value of this information may be greatly reduced.

Patent protection and other intellectual property protection are crucial to the success of our business and prospects, and there is a substantial risk that such protections will prove inadequate.

***If the Company or its partners are sued for infringing intellectual property rights of third parties, it will be costly and time consuming, and an unfavorable outcome in that litigation would have a material adverse effect on our business.***

Our commercial success also depends upon our ability and the ability of any of our future collaborators to develop, manufacture, market and sell our product candidates without infringing the proprietary rights of third parties. Numerous United States and foreign issued patents and pending patent applications, which are owned by third parties, exist in the fields in which we are developing products, some of which may be directed at claims that overlap with the subject matter of our intellectual property. For example, Roche has the Cabilly patents in the U.S. that block the commercialization of antibody products derived from a single cell line, like ublituximab. Also, Roche, Biogen Idec, and Genentech hold patents for the use of anti-CD20 antibodies utilized in the treatment of CLL in the U.S. Both of these patents are currently being challenged by third parties.

In addition, because patent applications can take many years to issue, there may be currently pending applications, unknown to us, which may later result in issued patents that our product candidates or proprietary technologies may infringe. Similarly, there may be issued patents relevant to our product candidates of which we are not aware.

There is a substantial amount of litigation involving patent and other intellectual property rights in the biotechnology and biopharmaceutical industries generally. If a third party claims that we or any collaborators of ours infringe their intellectual property rights, we may have to:

- obtain licenses, which may not be available on commercially reasonable terms, if at all;
- abandon an infringing product candidate or redesign its products or processes to avoid infringement;
- pay substantial damages, including treble damages and attorneys' fees, which we may have to pay if a court decides that the product or proprietary technology at issue infringes on or violates the third party's rights;
- pay substantial royalties, fees and/or grant cross licenses to our technology; and/or
- defend litigation or administrative proceedings which may be costly whether we win or lose, and which could result in a substantial diversion of our financial and management resources.

We have not conducted an extensive search of patents issued to third parties, and no assurance can be given that such patents do not exist, have not been filed, or could not be filed or issued, which contain claims covering its products, technology or methods. Because of the number of patents issued and patent applications filed in our technical areas or fields, we believe there is a significant risk that third parties may allege they have patent rights encompassing our products or methods.

Other product candidates that we may in-license or acquire could be subject to similar risks and uncertainties.

***We may be involved in lawsuits to protect or enforce our patents or the patents of our licensors, which could be expensive, time consuming and unsuccessful.***

Competitors may infringe our patents or the patents of our licensors. To counter infringement or unauthorized use, we may be required to file infringement claims, which typically are very expensive, time-consuming and disruptive of day-to-day business operations. In addition, in an infringement proceeding, a court may decide that a patent of ours or our licensors is not valid or is unenforceable, or may refuse to stop the other party from using the technology at issue on the grounds that our patents do not cover the technology in question. An adverse result in any litigation or defense proceedings could put one or more of our patents at risk of being invalidated, held unenforceable, or interpreted narrowly. The adverse result could also put related patent applications at risk of not issuing.

Interference proceedings provoked by third parties or brought by the U.S. Patent and Trademark Office (“PTO”) may be necessary to determine the priority of inventions with respect to our patents or patent applications or those of our collaborators or licensors. An unfavorable outcome could require us to cease using the related technology or to attempt to license rights to it from the prevailing party. Our business could be harmed if the prevailing party does not offer us a license on commercially reasonable terms. Litigation or interference proceedings may fail and, even if successful, may result in substantial costs and distract its management and other employees. We may not be able to prevent, alone or with our licensors, misappropriation of our trade secrets or confidential information, particularly in countries where the laws may not protect those rights as fully as in the United States. Moreover, as of March 16, 2013, the U.S. will convert from a “first to invent” to a “first to file” system. After that time, should there be any innovations that we invented first, but on which we filed the patent application second, we will have limited options available to reclaim invention priority.

Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our common stock.

***The Company may be subject to claims that its consultants or independent contractors have wrongfully used or disclosed alleged trade secrets of their other clients or former employers to it.***

As is common in the biotechnology and pharmaceutical industry, we engage the services of consultants to assist us in the development of our product candidates. Many of these consultants were previously employed at, may have previously been, or are currently providing consulting services to, other biotechnology or pharmaceutical companies, including our competitors or potential competitors. Although no claims against us are currently pending, we may be subject to claims that these consultants or the Company has inadvertently or otherwise used or disclosed trade secrets or other proprietary information of their former employers or their former or current customers. Litigation may be necessary to defend against these claims. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to management and day-to-day business operations.

### **Risks Relating to the Company’s Finances and Capital Requirements**

***The Company will need to raise additional capital to continue to operate its business.***

As of March 1, 2012, we had net cash on hand of approximately \$21,000,000. We believe that our cash on hand will sustain our operations for the next 24-30 months. As a result, we will need additional capital to continue our operations beyond that time. We will need to seek additional sources of financing in the future, which might not be available on favorable terms, if at all, to continue our operations. If we do not succeed in raising additional funds on acceptable terms, we might be unable to complete planned preclinical and clinical trials or obtain approval of any of our product candidates from the FDA or any foreign regulatory authorities. In addition, we could be forced to discontinue product development, reduce or forego sales and marketing efforts and forego attractive business opportunities. Any additional sources of financing will likely involve the issuance of the Company’s equity securities, which would have a dilutive effect on your holdings of our capital stock.

Currently, none of our product candidates have been approved by the FDA or any foreign regulatory authority for sale. Therefore, for the foreseeable future, we will have to fund all of our operations and capital expenditures from cash on hand and amounts raised in future offerings.

***We have a history of operating losses, expect to continue to incur losses, and are unable to predict the extent of future losses or when it will become profitable, if ever.***

The Company was incorporated in December 1993. We have not yet demonstrated an ability to obtain regulatory approval for or commercialize a product candidate. Our short operating history makes it difficult to evaluate our business prospects and consequently, any predictions about our future performance may not be as accurate as they could be if we had a history of successfully developing and commercializing pharmaceutical or biotechnology products. The Company’s prospects must be considered in light of the uncertainties, risks, expenses and difficulties frequently encountered by companies in their early stages of operations and the competitive environment in which we operate.

The Company has never been profitable, and, as of December 31, 2011, we had an accumulated deficit of approximately \$853,000. We have generated operating losses in all periods since the Company was incorporated. We expect to make substantial expenditures resulting in increasing operating costs in the future and our accumulated deficit may increase significantly as we expand development and clinical trial efforts for our product candidates. Our losses have had, and are expected to continue to have, an adverse impact on our working capital, total assets and stockholders’ equity. Because of the risks and uncertainties associated with product development, we are unable to predict the extent of any future losses or when we will become profitable, if ever. Even if we achieve profitability, we may not be able to sustain or increase profitability on an ongoing basis.

***We have not generated any revenue from our product candidates and may never become profitable.***

Our ability to become profitable depends upon our ability to generate significant continuing revenues. To obtain significant continuing revenues, we must succeed, either alone or with others, in developing, obtaining regulatory approval for and manufacturing and marketing our product candidates (or utilize early access programs to generate such revenue). To date, our product candidates have not generated any revenues, and we do not know when, or if, we will generate any revenue. Our ability to generate revenue depends on a number of factors, including, but not limited to:

- successful completion of preclinical studies of its product candidates;
- successful commencement and completion of clinical trials of its product candidates and any future product candidates we advance into clinical trials;
- achievement of regulatory approval for our product candidates and any future product candidates we advance into clinical trials (unless we successfully utilize early access programs which allow for revenue generation prior to approval);
- manufacturing commercial quantities of our products at acceptable cost levels if regulatory approvals are obtained;
- successful sales, distribution and marketing of our future products, if any; and
- our entry into collaborative arrangements or co-promotion agreements to market and sell our products.

If the Company is unable to generate significant continuing revenues, we will not become profitable and we may be unable to continue our operations without continued funding.

***We will need substantial additional funding and may be unable to raise capital when needed, which would force us to delay, reduce or eliminate our development programs or commercialization efforts.***

We expect to spend substantial amounts on development, including significant amounts on conducting clinical trials for our product candidates, manufacturing clinical supplies and expanding our pharmaceutical development programs. We expect that our monthly cash used by operations will continue to increase for the next several years. We anticipate that we will continue to incur operating losses for the foreseeable future.

We will require substantial additional funds to support our continued research and development activities, as well as the anticipated costs of preclinical studies and clinical trials, regulatory approvals, and eventual commercialization. We anticipate that we will incur operating losses for the foreseeable future. We have based these estimates, however, on assumptions that may prove to be wrong, and we could expend our available financial resources much faster than we currently expect. Further, we will need to raise additional capital to fund our operations and continue to conduct clinical trials to support potential regulatory approval of marketing applications. Future capital requirements will also depend on the extent to which we acquire or in-license additional product candidates. We currently have no commitments or agreements relating to any of these types of transactions.

The amount and timing of our future funding requirements will depend on many factors, including, but not limited to, the following:

- the progress of our clinical trials, including expenses to support the trials and milestone payments that may become payable under our license agreements;
- the costs and timing of regulatory approvals;
- the costs and timing of clinical and commercial manufacturing supply arrangements for each product candidate;
- the costs of establishing sales or distribution capabilities;
- the success of the commercialization of our products;
- our ability to establish and maintain strategic collaborations, including licensing and other arrangements;
- the costs involved in enforcing or defending patent claims or other intellectual property rights; and
- the extent to which we in-license or invest in other indications or product candidates.

Until the Company can generate a sufficient amount of product revenue and achieve profitability, we expect to finance future cash needs through public or private equity offerings, debt financings or corporate collaboration and licensing arrangements, as well as through interest income earned on cash balances. If we were to be unable to raise additional capital, we would have to significantly delay, scale back or discontinue one or more of our pharmaceutical development programs. We also may be required to relinquish, license or otherwise dispose of rights to product candidates or products that it would otherwise seek to develop or commercialize itself on terms that are less favorable than might otherwise be available.



***Raising additional funds by issuing securities or through licensing or lending arrangements may cause dilution to our existing stockholders, restrict our operations or require us to relinquish proprietary rights.***

The Company may raise additional funds through public or private equity offerings, debt financings or licensing arrangements. To the extent that we raise additional capital by issuing equity securities, the share ownership of existing stockholders will be diluted. Any future debt financing we enter into may involve covenants that restrict our operations, including limitations on our ability to incur liens or additional debt, pay dividends, redeem our stock, make certain investments and engage in certain merger, consolidation or asset sale transactions, among other restrictions.

In addition, if we raise additional funds through licensing arrangements, it may be necessary to relinquish potentially valuable rights to our product candidates, or grant licenses on terms that are not favorable to us. If adequate funds are not available, our ability to achieve profitability or to respond to competitive pressures would be significantly limited and we may be required to delay, significantly curtail or eliminate the development of one or more of our product candidates.

***We are controlled by current officers, directors and principal stockholders.***

Our directors, executive officers and principal stockholders beneficially own approximately 26% percent of our outstanding voting stock and, including shares underlying outstanding options and warrants. Our directors, officers and principal stockholders, taken as a whole, have the ability to exert substantial influence over the election of our Board of Directors and the outcome of issues submitted to our stockholders.

***Our stock price is, and we expect it to remain, volatile, which could limit investors' ability to sell stock at a profit.***

During the last two fiscal years, our stock price has traded at a low of \$0.0175 in the fourth quarter of 2011 to a high of \$4.26 in the second quarter of 2010. The volatile price of our stock makes it difficult for investors to predict the value of their investment, to sell shares at a profit at any given time, or to plan purchases and sales in advance. A variety of factors may affect the market price of our common stock. These include, but are not limited to:

- The global economic crisis, which affected stock prices of many companies, and particularly many small pharmaceutical companies like ours;
- publicity regarding actual or potential clinical results relating to products under development by our competitors or us;
- delay or failure in initiating, completing or analyzing nonclinical or clinical trials or the unsatisfactory design or results of these trials;
- achievement or rejection of regulatory approvals by our competitors or us;
- announcements of technological innovations or new commercial products by our competitors or us;
- developments concerning proprietary rights, including patents;
- developments concerning our collaborations;
- regulatory developments in the United States and foreign countries;
- economic or other crises and other external factors;
- period-to-period fluctuations in our revenues and other results of operations;
- changes in financial estimates by securities analysts; and
- sales of our common stock.

We will not be able to control many of these factors, and we believe that period-to-period comparisons of our financial results will not necessarily be indicative of our future performance.

In addition, the stock market in general, and the market for biotechnology companies in particular, has experienced extreme price and volume fluctuations that may have been unrelated or disproportionate to the operating performance of individual companies. These broad market and industry factors may seriously harm the market price of our common stock, regardless of our operating performance.

***Our Common Stock is not listed on a national exchange and there is a limited market for the Common Stock which may make it more difficult for you to sell your stock.***

Our Common Stock is quoted on the OTC Bulletin Board under the symbol "TGTX.OB." There is a limited trading market for our Common Stock which negatively impacts the liquidity of our Common Stock not only in terms of the number of shares that can be bought and sold at a given price, but also through delays in the timing of transactions and reduction in security analysts' and the media's coverage of us. Accordingly, there can be no assurance as to the liquidity of any markets that may develop for the Common Stock, the ability of holders of our Common Stock to sell the Common Stock, or the prices at which holders may be able to sell the Common Stock.

***The fact that our common stock is not listed on a national exchange may negatively impact our ability to attract investors and to use our common stock to raise capital to fund our operations.***

In order to maintain liquidity in our common stock, we depend upon the continuing availability of a market on which our securities may be traded. We need to raise substantial additional funds in the future to continue our operations and the fact that our common stock is not listed on a national exchange may impact our ability to attract investors and to use our common stock to raise sufficient capital to continue to fund our operations.

***If we fail to file periodic reports with the SEC our common stock may be removed from the OTCBB.***

Pursuant to the Over-The-Counter Bulletin Board ("OTCBB") rules relating to the timely filing of periodic reports with the SEC, any OTCBB issuer which fails to file a periodic report (Form 10-Q's or 10-K's) by the due date of such report (as extended by the filing of a Form 12b-25), three (3) times during any twenty-four (24) month period is automatically de-listed from the OTCBB. In the event an issuer is de-listed, such issuer would not be eligible to be re-listed on the OTCBB for a period of one-year, during which time any subsequent late filing would reset the one-year period of de-listing. If the Company is late in its filings three (3) times in any twenty-four (24) month period and is de-listed from the OTCBB, the Common Stock would likely be listed for trading only on the "Pink Sheets," which generally provide an even less liquid market than the OTCBB. In such event, investors may find it more difficult to trade the Common Stock or to obtain accurate, current information concerning market prices for the Common Stock.

***There is a risk of market fraud.***

OTCBB securities are frequent targets of fraud or market manipulation. Not only because of their generally low price, but also because the OTCBB reporting requirements for these securities are less stringent than for listed or NASDAQ traded securities, and no exchange requirements are imposed. Dealers may dominate the market and set prices that are not based on competitive forces. Individuals or groups may create fraudulent markets and control the sudden, sharp increase of price and trading volume and the equally sudden collapse of market prices.

***Penny stock regulations may impose certain restrictions on marketability of our securities.***

The Securities and Exchange Commission has adopted Rule 15g-9 which establishes the definition of a "penny stock," for the purposes relevant to us, as any equity security that has a market price of less than \$5.00 per share or with an exercise price of less than \$5.00 per share, subject to certain exceptions. For any transaction involving a penny stock, unless exempt, the rules require:

- that a broker or dealer approve a person's account for transactions in penny stocks; and
- the broker or dealer receives from the investor a written agreement to the transaction, setting forth the identity and quantity of the penny stock to be purchased.

In order to approve a person's account for transactions in penny stocks, the broker or dealer must:

- obtain financial information and investment experience objectives of the person; and
- make a reasonable determination that the transactions in penny stocks are suitable for that person and the person has sufficient knowledge and experience in financial matters to be capable of evaluating the risks of transactions in penny stocks.

The broker or dealer must also deliver, prior to any transaction in a penny stock, a disclosure schedule prescribed by the Commission relating to the penny stock market, which, in highlight form:

- sets forth the basis on which the broker or dealer made the suitability determination; and
- that the broker or dealer received a signed, written agreement from the investor prior to the transaction.

Generally, brokers may be less willing to execute transactions in securities subject to the “penny stock” rules. This may make it more difficult for investors to dispose of our Common Stock and cause a decline in the market value of our stock.

Disclosure also must be made about the risks of investing in penny stocks in both public offerings and in secondary trading and about the commissions payable to both the broker-dealer and the registered representative, current quotations for the securities and the rights and remedies available to an investor in cases of fraud in penny stock transactions. Finally, monthly statements have to be sent disclosing recent price information for the penny stock held in the account and information on the limited market in penny stocks.

***We have not paid dividends in the past and do not expect to pay dividends in the future, and any return on investment may be limited to the value of your stock.***

We have never paid dividends on our Common Stock and do not anticipate paying any dividends for the foreseeable future. You should not rely on an investment in our stock if you require dividend income. Further, you will only realize income on an investment in our stock in the event you sell or otherwise dispose of your shares at a price higher than the price you paid for your shares. Such a gain would result only from an increase in the market price of our Common Stock, which is uncertain and unpredictable.

## **ITEM 2. PROPERTIES.**

Our corporate and executive office is located in New York, New York. Our New York facilities consist of leased office space at 48 Wall Street, New York, New York 10005, and office space at 787 Seventh Avenue, 48<sup>th</sup> Floor, New York, New York 10019. The lease at 48 Wall Street expired on September 30, 2011 and we have continued to occupy the space on a month-to-month basis thereafter. In January 2012, the Company notified the landlord that March 2012 would be our final month in the space. We are not currently under a lease agreement at 787 Seventh Avenue. We believe that our existing facilities are adequate to meet our current requirements. We do not own any real property.

## **ITEM 3. LEGAL PROCEEDINGS.**

We, and our subsidiaries, are not a party to, and our property is not the subject of, any material pending legal proceedings.

## **ITEM 4. MINE SAFETY DISCLOSURES.**

This item is not applicable to the Company.

## **PART II**

## **ITEM 5. MARKET FOR REGISTRANT’S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES.**

### ***Market Information***

Our common stock is listed on the Over the Counter Bulletin Board (“OTCBB”) and during 2011 traded under the symbol “MHAN.” Effective January 12, 2012 the Company began trading under the symbol “TGTX.”

The following table sets forth the high and low closing sale prices of our common stock for the periods indicated.

<b>Fiscal Year Ended December 31, 2011</b>	<b>High</b>		<b>Low</b>	
Fourth Quarter	\$	0.20	\$	0.02
Third Quarter	\$	0.51	\$	0.10
Second Quarter	\$	0.85	\$	0.28
First Quarter	\$	1.65	\$	0.63

### ***Holder***

The number of record holders of our common stock as of March 1, 2012 was 327.

## Dividends

We have never declared or paid any cash dividends on our common stock and do not anticipate paying any cash dividends in the foreseeable future. Any future determination to pay dividends will be at the discretion of our board of directors.

## Stock Repurchases

We did not make any repurchases of our common stock during 2011.

## Securities Authorized for Issuance Under Equity Compensation Plans

The following table provides information as of December 31, 2011, regarding the securities authorized for issuance under our equity compensation plans, consisting of the 1995 Stock Option Plan, and the 2003 Stock Option Plan.

### Equity Compensation Plan Information

Plan Category	Number of securities to be issued upon exercise of outstanding options	Weighted-average exercise price of outstanding options	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
	(a)	(b)	(c)
Equity compensation plans approved by security holders	188,683	\$ 23.33	133,107
Equity compensation plans not approved by security holders	—	—	—
Total	188,683	\$ 23.33	133,107

For information about all of our equity compensation plans, see Note 4 to our Consolidated Financial Statements included in this report.

## Recent Sales of Unregistered Securities

On December 30, 2011, we completed an initial closing of the private placement of our securities, issuing 277,285,633 shares of Company Common Stock at a price per share of \$0.04 for total gross proceeds, before placement commissions and expenses, of \$11,091,425 (the "2011 Equity PIPE"). Investors also received warrants to purchase 69,321,424 shares of Company Common Stock. The warrants have an exercise price of \$0.04 per share and are exercisable for five years. The shares of Company Common Stock and warrants sold in the initial closing were offered and sold to accredited investors, including members of management, without registration under the Securities Act of 1933, as amended (the "Securities Act"), or state securities laws, in reliance on the exemptions provided by Section 4(2) of the Securities Act, and Regulation D promulgated thereunder and in reliance on similar exemptions under applicable state laws. Accordingly, the securities to be issued in the Offering have not been registered under the Securities Act, and until so registered, these securities may not be offered or sold in the United States absent registration or availability of an applicable exemption from registration. The placement agent received cash commissions equal to 10% of the gross proceeds of the Offering, five-year warrants to purchase shares of the Company's stock equal to 10% of shares sold in the Offering, and a non-accountable expense allowance equal to two percent of the gross proceeds of the Offering for their expenses (not including up to \$80,000 of legal expenses and any blue sky fees, both of which were reimbursed by the Company).

In 2012, we completed two additional closings of the 2011 Equity PIPE. These closings were held on January 31, 2012, and February 24, 2012. In these closings, the Company issued 695,428 shares of our Series A Preferred Stock ("Preferred Stock") at a price per share of \$20.00 for total gross proceeds, before placement commissions and expenses, of \$13,908,560. Each share of Series A Preferred Stock is convertible into 500 shares of the common stock of the Company ("Company Common Stock") provided that such conversion rights are subject to sufficient available authorized shares of Company Common Stock, which the Company intends to accomplish through the amendment of its Certificate of Incorporation, or a reverse stock split, at the next meeting of stockholders. Investors also received warrants to purchase 86,928,500 shares of Company Common Stock. The warrants have an exercise price of \$0.04 per share and are exercisable for five years. The shares of Preferred Stock and warrants sold in these closings were offered and sold to accredited investors, including members of management, without registration under the Securities Act, or state securities laws, in reliance on the exemptions provided by Section 4(2) of the Securities Act, and Regulation D promulgated thereunder and in reliance on similar exemptions under applicable state laws. Accordingly, the securities to be issued in the Offering have not been registered under the Securities Act, and until so registered, these securities may not be offered or sold in the United States absent registration or availability of an applicable exemption from registration. The placement agent received cash commissions equal to 10% of the gross proceeds of the Offering, five-year warrants to purchase shares of the Company's stock equal to 10% of shares sold in the Offering, and a non-accountable expense allowance equal to two percent of the gross proceeds of the Offering for their expenses.

#### **Activities Prior to the Exchange Transaction with TG Therapeutics, Inc.**

On February 3, 2009, we completed a private placement (the "2009 Private Placement") of 345 units, with each unit consisting of a 12% senior secured promissory note in the principal amount of \$5,000 and a warrant to purchase up to 166,667 shares of common stock at an exercise price of \$.09 per share which expires on December 31, 2013, for aggregate gross proceeds of \$1,725,000. The private placement was completed in three closings which occurred on November 19, 2008 with respect to 207 units, December 23, 2008 with respect to 56 units and February 3, 2009 with respect to 82 units.

All of the investors represented in the 2009 Private Placement represented that they were "accredited investors," as that term is defined in Rule 501(a) of Regulation D under the Securities Act, and the sale of the units was made in reliance on exemptions provided by Regulation D and Section 4(2) of the Securities Act of 1933, as amended.

On February 9, 2011, the Company entered into a waiver and forbearance agreement (the "Extension Agreement") with the requisite holders of the Secured 12% Notes whereby the holders of the notes (the "Noteholders") agreed to forbear the exercise of their rights under the Notes and waive the default thereof until December 31, 2011. As part of the Extension Agreement, the Company agreed to take prompt steps to seek to reduce its outstanding indebtedness by permitting the Noteholders to convert the Secured 12% Notes into shares of the Company's common stock at a conversion price of \$0.50 per share and to amend the terms of the warrants issued with the Secured 12% Notes to include a full-ratchet anti-dilution feature and an exercise price of \$0.50 per share. The Company obtained stockholder approval to, among other things, increase the number of its authorized common stock. The Secured 12% Notes became convertible into common stock at a conversion price of \$0.50, which triggered the antidilution rights of the warrants issued with Secured 12% Notes, the warrants issued with the Convertible 12% Note and the warrants issued in the 2010 Equity Pipe. The Secured 12% Notes and interest thereon, amounting to \$676,072 at the time of conversion, converted into the right to receive 4,802,199 shares of the Company's common stock on September 15, 2011 (the "Secured Debt Conversion"). In connection with the Exchange Transaction with TG Therapeutics, Inc., the warrant holders of the 12% Notes agreed to waive their anti-dilution feature, in exchange for the exercise price being lowered to \$0.04, and the warrant life being adjusted to a five year term prior to the execution of the Exchange Transaction.

On March 2, 2010, we raised aggregate gross proceeds of approximately \$2,547,500 pursuant to a private placement of its securities (the "2010 Equity Financing"). The Company entered into subscription agreements (the "Subscription Agreements") with seventy-seven accredited investors (the "Investors") pursuant to which the Company sold an aggregate of 101.9 Units (as defined herein) for a purchase price of \$25,000 per Unit. Pursuant to the Subscription Agreements, the Company issued to each Investor units (the "Units") consisting of (i) 357,143 shares of common stock, \$0.001 par value per share (the "Common Stock" or "Shares") of the Company and (ii) 535,714 warrants (each a "Warrant" and collectively the "Warrants"), each of which will entitle the holder to purchase one additional share of Common Stock for a period of five years (each a "Warrant Share" and collectively the "Warrant Shares") at an exercise price of \$0.08 per share.

On April 8, 2010, we completed the final closing of the 2010 Equity Financing. In connection with the final closing, the Company sold an aggregate of 2.4 additional Units and received net proceeds of approximately \$51,700 after payment of an aggregate of \$8,300 of commissions and expense allowance to placement agent. In connection with the final closing, the Company also issued a warrant to purchase 12,857 shares of Common Stock at an exercise price of \$0.08 per share to the placement agent as additional compensation for its services.

Also in connection with the final closing on April 8, 2010, the holder of the Convertible 12% Note, exercised its option to convert its Convertible 12% Note (including all accrued interest thereon) into 16.88 Units. The conversion price was equal to the per Unit purchase price paid by the Investors in the 2010 Equity Financing.

All of the Investors represented that they were “accredited investors,” as that term is defined in Rule 501(a) of Regulation D under the Securities Act, and the sale of the Units was made in reliance on exemptions provided by Regulation D and Section 4(2) of the Securities Act of 1933, as amended.

The Company received net proceeds of approximately \$2.2 million after payment of an aggregate of \$300,000 of commissions and expense allowance to the Placement Agent, and approximately \$100,000 of other offering and related costs in connection with the private placement. In addition, the Company issued a warrant to purchase 3,652,146 shares of Common Stock at an exercise price of \$0.08 per share to the Placement Agent as additional compensation for its services.

The Company did not use any form of advertising or general solicitation in connection with the sale of the Units. The Shares, the Warrants and the Warrant Shares are non-transferable in the absence of an effective registration statement under the Act, or an available exemption therefrom, and all certificates are imprinted with a restrictive legend to that effect.

## **ITEM 7. MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS.**

The following discussion and analysis contains forward-looking statements about our plans and expectations of what may happen in the future. Forward-looking statements are based on a number of assumptions and estimates that are inherently subject to significant risks and uncertainties, and our results could differ materially from the results anticipated by our forward-looking statements as a result of many known or unknown factors, including, but not limited to, those factors discussed in “Item 1A. Risk Factors.” See also the “Special Cautionary Notice Regarding Forward-Looking Statements” set forth at the beginning of this report.

You should read the following discussion and analysis in conjunction with “Item 8. Financial Statements and Supplementary Data,” and our consolidated financial statements beginning on page F-1 of this report.

### **Overview**

We were incorporated in Delaware in 1993 under the name “Atlantic Pharmaceuticals, Inc.” and, in March 2000, we changed our name to “Atlantic Technology Ventures, Inc.” In 2003, we completed a “reverse acquisition” of privately held “Manhattan Research Development, Inc”. In connection with this transaction, we also changed our name to “Manhattan Pharmaceuticals, Inc.” From an accounting perspective, the accounting acquirer is considered to be Manhattan Research Development, Inc. and accordingly, through December 29, 2011, the historical financial statements were those of Manhattan Research Development, Inc.

On March 8, 2010, the Company entered into an Agreement and Plan of Merger (the “Merger Agreement”) by and among the Company, Ariston Pharmaceuticals, Inc., a Delaware corporation (“Ariston”) and Ariston Merger Corp., a Delaware corporation and wholly-owned subsidiary of the Company (the “Merger Sub”). Pursuant to the terms and conditions set forth in the Merger Agreement, on March 8, 2010, the Merger Sub merged with and into Ariston (the “Merger”), with Ariston being the surviving corporation of the Merger. As a result of the Merger, Ariston became a wholly-owned subsidiary of the Company.

On December 29, 2011, we entered into and consummated an Exchange Transaction Agreement with Opus and TG. Under the Agreement, Opus exchanged its shares of TG Common Stock for shares of Series A Preferred Stock in the Company. The exchange ratio was \$2.25, divided by \$.04, divided by 500. As a result Opus received 281,250 shares of Company Preferred Stock. From an accounting perspective, the accounting acquirer is considered to be TG Therapeutics, Inc. and accordingly, the historical financial statements are those of TG Therapeutics, Inc. TG Therapeutics, Inc. was incorporated in Delaware in November 2010, but did not commence operations until April 2011, thus the historical financial statements of TG consists of only 2011.

We are a biopharmaceutical company focused on the development of a novel monoclonal antibody for the treatment of various B-cell proliferative disorders including lymphoma, leukemia, and auto-immune diseases. The Company may also pursue complementary technology and product acquisitions, in-licensing and investments.

We have not earned any revenues from the commercial sale of any of our drug candidates, or from any other source.

Our research and development expenses consist primarily of expenses related to in-licensing of new product candidates, fees paid to consultants and outside service providers for clinical and laboratory development, facilities-related and other expenses relating to the design, development, manufacture, testing, and enhancement of our drug candidates and technologies. We expense our research and development costs as they are incurred. Research and development expenses for the year ended December 31, 2011 was \$327,283.

The following table sets forth the research and development expenses per project, for 2011.

	<b>2011</b>
Ublituximab	\$ 325,671
AST-726	—
AST-915	1,612
Total	<u>\$ 327,283</u>

Our general and administrative expenses consist primarily of salaries and related expenses for executive, finance and other administrative personnel, recruitment expenses, professional fees and other corporate expenses, including investor relations, legal activities and facilities-related expenses.

Our results of operations include non-cash compensation expense as a result of the grants of stock options and restricted stock. Compensation expense for awards of options and restricted stock granted to employees and directors represents the fair value of the award recorded over the respective vesting periods of the individual awards. The expense is included in the respective categories of expense in the consolidated statements of operations. We expect to continue to incur significant non-cash compensation expenses.

For awards of options and restricted stock to consultants and other third-parties, compensation expense is determined at the “measurement date.” The expense is recognized over the vesting period of the award. Until the measurement date is reached, the total amount of compensation expense remains uncertain. We record compensation expense based on the fair value of the award at the reporting date. The awards to consultants and other third-parties are then revalued, or the total compensation is recalculated based on the then current fair value, at each subsequent reporting date. This results in a change to the amount previously recorded in respect of the equity award grant, and additional expense or a reversal of expense may be recorded in subsequent periods based on changes in the assumptions used to calculate fair value, such as changes in market price, until the measurement date is reached and the compensation expense is finalized. The Company did not grant any consultant options during the year ended December 31, 2011.

In addition, certain restricted stock issued to employees vest upon the achievement of certain milestones, therefore the total expense is uncertain until the milestone is probable.

Our clinical trials will be lengthy and expensive. Even if these trials show that our drug candidates are effective in treating certain indications, there is no guarantee that we will be able to record commercial sales of any of our drug candidates in the near future. In addition, we expect losses to continue as we continue to fund in-licensing and development of new drug candidates. As we continue our development efforts, we may enter into additional third-party collaborative agreements and may incur additional expenses, such as licensing fees and milestone payments. In addition, we may need to establish the commercial infrastructure required to manufacture, market and sell our drug candidates following approval, if any, by the FDA, which would result in us incurring additional expenses. As a result, our quarterly results may fluctuate and a quarter-by-quarter comparison of our operating results may not be a meaningful indication of our future performance.

## RESULTS OF OPERATIONS

Year Ended December 31, 2011

	<u>Year ended December 31, 2011</u>
<b>Costs and expenses:</b>	
Research and development:	
Non-cash compensation expense	\$ -
Other research and development expenses	327,283
<b>Total research and development expenses</b>	<b>327,283</b>
General and administrative:	
Non-cash compensation expense	86,494
Other general and administrative expenses	468,197
<b>Total general and administrative expenses</b>	<b>554,691</b>
Other expense	
Interest and amortization on notes payable	(7,097)
<b>Total other expense</b>	<b>(7,097)</b>
<b>Net loss</b>	<b>\$ (889,071)</b>

*Non-Cash Compensation Expense (Research and Development).* No non-cash compensation expense (research and development) related to equity incentive grants was recorded during the year ended December 31, 2011. Non-cash compensation expense is related to grants of equity awards to research and development personnel and the recording of the related fair value of the awards over the respective vesting periods of the individual awards. We expect non-cash compensation expense (research and development) to increase in 2012 as we begin clinical trials with R-603 and hire personnel to manage those programs.

*Other Research and Development Expenses.* Other research and development expenses totaled \$327,283 for the year ended December 31, 2011. This expense was primarily related to a non-cash charge recorded associated with the stock issued to LFB Biotechnologies, for the license to TGTX-1101. We expect our other research and development costs to increase substantially in 2012 due to the commencement of our clinical development program for TGTX-1101.

*Non-Cash Compensation Expense (General and Administrative).* Non-cash compensation expense (general and administrative) related to equity incentive grants equaled \$86,494 for the year ended December 31, 2011. The non-cash compensation expense was primarily related to the period's expense for restricted stock grants to our chief executive officer and chief financial officer. We expect non-cash compensation expense (general and administrative) to increase in 2012 as we hire additional personnel.

*Other General and Administrative Expenses.* Other general and administrative expenses totaled \$468,197 for the year ended December 31, 2011. This expense was primarily related to legal and financial advisory fees associated with the TG Therapeutics transaction. We expect our other general and administrative expenses in 2011 to increase substantially in 2012 as we hire additional staff, and build out our organization.

*Interest and amortization on notes payable.* Interest and amortization on notes payable totaled \$7,097 for the year ended December 31, 2011.

## LIQUIDITY AND CAPITAL RESOURCES

Our primary source of cash has been proceeds from the private placement of equity securities, and through debt financings. We have not yet commercialized any of our drug candidates and cannot be sure if we will ever be able to do so. Even if we commercialize one or more of our drug candidates, we may not become profitable. Our ability to achieve profitability depends on a number of factors, including our ability to obtain regulatory approval for our drug candidates, successfully complete any post-approval regulatory obligations and successfully commercialize our drug candidates alone or in partnership. We may continue to incur substantial operating losses even if we begin to generate revenues from our drug candidates.



As of December 31, 2011, we had \$9.7 million in cash, and cash equivalents. We currently anticipate that our cash and cash equivalents as of December 31, 2011, inclusive of our 2011 Equity PIPE closings subsequent to December 31, 2011, to be sufficient to fund our anticipated operating cash requirements for approximately 24-30 months from December 31, 2011. The actual amount of cash that we will need to operate is subject to many factors, including, but not limited to, the timing, design and conduct of clinical trials for our drug candidates. We are dependent upon significant financing to provide the cash necessary to execute our current operations, including the commercialization of any of our drug candidates.

Cash used in operating activities for the year ended December 31, 2011 was \$86,577, which primarily related to general and administrative and research and development expenses associated with TG Therapeutics commencing operations and development of TGTX-1101.

For the year ended December 31, 2011, net cash provided by investing activities of \$10,386, which consisted of cash that was acquired in the Exchange Transaction between TG Therapeutics and the Company.

For the year ended December 31, 2011, net cash provided by financing activities of \$9,824,682, related to net proceeds from the issuance of the Company's common stock.

The Company did not use any form of advertising or general solicitation in connection with the sale of the Units. The Shares, the Warrants and the Warrant Shares are non-transferable in the absence of an effective registration statement under the Act, or an available exemption therefrom, and all certificates are imprinted with a restrictive legend to that effect.

### ***2011 Equity PIPE***

On December 30, 2011, we completed an initial closing of the private placement of our securities, issuing 277,285,633 shares of Company Common Stock at a price per share of \$0.04 for total gross proceeds, before placement commissions and expenses, of \$11,091,425 (the "2011 Equity PIPE"). Investors also received warrants to purchase 69,321,424 shares of Company Common Stock. The warrants have an exercise price of \$0.04 per share and are exercisable for five years. The shares of Company Common Stock and warrants sold in the initial closing were offered and sold to accredited investors, including members of management, without registration under the Securities Act, or state securities laws, in reliance on the exemptions provided by Section 4(2) of the Securities Act, and Regulation D promulgated thereunder and in reliance on similar exemptions under applicable state laws. Accordingly, the securities to be issued in the Offering have not been registered under the Securities Act, and until so registered, these securities may not be offered or sold in the United States absent registration or availability of an applicable exemption from registration. The placement agent received cash commissions equal to 10% of the gross proceeds of the Offering, five-year warrants to purchase shares of the Company's stock equal to 10% of shares sold in the Offering, and a non-accountable expense allowance equal to two percent of the gross proceeds of the Offering for their expenses (not including up to \$80,000 of legal expenses and any blue sky fees, both of which were reimbursed by the Company).

In 2012, we completed two additional closings of the 2011 Equity PIPE. These closings were held on January 31, 2012, and February 24, 2012. In these closings, the Company issued 695,428 shares of our Series A Preferred Stock ("Preferred Stock") at a price per share of \$20.00 for total gross proceeds, before placement commissions and expenses, of \$13,908,560. Each share of Series A Preferred Stock is convertible into 500 shares of the common stock of the Company ("Company Common Stock") provided that such conversion rights are subject to sufficient available authorized shares of Company Common Stock, which the Company intends to accomplish through the amendment of its Certificate of Incorporation, or a reverse stock split, at the next meeting of stockholders. Investors also received warrants to purchase 86,928,500 shares of Company Common Stock. The warrants have an exercise price of \$0.04 per share and are exercisable for five years. The shares of Preferred Stock and warrants sold in these closings were offered and sold to accredited investors, including members of management, without registration under the Securities Act, or state securities laws, in reliance on the exemptions provided by Section 4(2) of the Securities Act, and Regulation D promulgated thereunder and in reliance on similar exemptions under applicable state laws. Accordingly, the securities to be issued in the Offering have not been registered under the Securities Act, and until so registered, these securities may not be offered or sold in the United States absent registration or availability of an applicable exemption from registration. The placement agent received cash commissions equal to 10% of the gross proceeds of the Offering, five-year warrants to purchase shares of the Company's stock equal to 10% of shares sold in the Offering, and a non-accountable expense allowance equal to two percent of the gross proceeds of the Offering for their expenses.

### ***Joint Venture Agreement***

On April 19, 2011, H Pharmaceuticals K/S (the "Hedrin JV"), of which the Company was a 15% limited partner at the time, filed a demand for arbitration against Thornton & Ross, LTD. ("T&R") with respect to alleged breaches by T&R of an Exclusive License Agreement (the "Hedrin License") dated June 28, 2007, which was originally entered into between the Company and T&R, and which the Company assigned in 2008 to the Hedrin JV, with T&R's consent. The Hedrin JV is seeking damages from T&R in the amount of approximately \$7,000,000. The Company was not a party to the initial arbitration demand.

On May 20, 2011, T&R filed an answer to the arbitration demand in which T&R asserted counterclaims against the Hedrin JV for alleged breaches by the Hedrin JV of the Hedrin License and for declaratory relief that the Hedrin License was properly terminated by T&R. In addition, T&R impleaded an individual (who is not associated with the Company), Nordic Biotech Venture Fund II K/S (an investment fund) and the Company, demanding arbitration against them based on alleged breaches of the Hedrin License and other related claims. The Company has recently been removed by the arbitrator as a party to the arbitration. T&R is seeking damages of approximately \$20,000,000.

The Hedrin JV and T&R held a mediation session in order to avoid the arbitration process. The mediation process did not produce a result. Nordic has recently made an additional capital contribution to the Hedrin JV in order to fund the arbitration. As a result of that capital contribution the Company now owns a 13% interest in the Hedrin JV. The arbitration process is ongoing.

#### ***SwissPharma Contract LLC Settlement***

In October 2009, the Company entered into a Settlement Agreement and Mutual Release with Swiss Pharma Contract LTD (“Swiss Pharma”) pursuant to which the Company agreed to pay Swiss Pharma \$200,000 and issue to Swiss Pharma an interest free promissory note due on October 27, 2011 in the principal amount of \$250,000 in full satisfaction of a September 5, 2008 arbitration award. In November 2011, the Company renegotiated the \$250,000 promissory note due October 27, 2011 in which the amount of the promissory note was reduced to \$200,000 and the maturity date was extended to February 15, 2012. This amount was paid on February 14, 2012 in full settlement of this note.

#### **OFF-BALANCE SHEET ARRANGEMENTS**

We have not entered into any transactions with unconsolidated entities whereby we have financial guarantees, subordinated retained interests, derivative instruments or other contingent arrangements that expose us to material continuing risks, contingent liabilities, or any other obligations under a variable interest in an unconsolidated entity that provides us with financing, liquidity, market risk or credit risk support.

#### **OBLIGATIONS AND COMMITMENTS**

##### ***Leases***

Rent expense for the year ended December 31, 2011 was immaterial. The Company has no future minimum rental payments subsequent to December 31, 2011 under an operating lease for the Company’s office facility, which expired on September 30, 2011.

#### **CRITICAL ACCOUNTING POLICIES**

The discussion and analysis of our financial condition and results of operations is based upon our consolidated financial statements, which have been prepared in accordance with U.S. generally accepted accounting principles. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amount of assets and liabilities and related disclosure of contingent assets and liabilities at the date of our financial statements and the reported amounts of revenues and expenses during the applicable period. Actual results may differ from these estimates under different assumptions or conditions.

We define critical accounting policies as those that are reflective of significant judgments and uncertainties and which may potentially result in materially different results under different assumptions and conditions. In applying these critical accounting policies, our management uses its judgment to determine the appropriate assumptions to be used in making certain estimates. These estimates are subject to an inherent degree of uncertainty. Our critical accounting policies include the following:

*Stock Compensation.* We have granted stock options and restricted stock to employees, directors and consultants, as well as warrants to other third parties. For employee and director grants, the value of each option award is estimated on the date of grant using the Black-Scholes option-pricing model. The Black-Scholes model takes into account volatility in the price of our stock, the risk-free interest rate, the estimated life of the option, the closing market price of our stock and the exercise price. We base our estimates of our stock price volatility on the historical volatility of our common stock and our assessment of future volatility; however, these estimates are neither predictive nor indicative of the future performance of our stock. For purposes of the calculation, we assumed that no dividends would be paid during the life of the options and warrants. The estimates utilized in the Black-Scholes calculation involve inherent uncertainties and the application of management judgment. In addition, we are required to estimate the expected forfeiture rate and only recognize expense for those equity awards expected to vest. As a result, if other assumptions had been used, our recorded stock-based compensation expense could have been materially different from that reported. In addition, because some of the options and warrants issued to employees, consultants and other third-parties vest upon the achievement of certain milestones, the total expense is uncertain.

Total compensation expense for options and restricted stock issued to consultants is determined at the “measurement date.” The expense is recognized over the vesting period for the options and restricted stock. Until the measurement date is reached, the total amount of compensation expense remains uncertain. We record stock-based compensation expense based on the fair value of the equity awards at the reporting date. These equity awards are then revalued, or the total compensation is recalculated based on the then current fair value, at each subsequent reporting date. This results in a change to the amount previously recorded in respect of the equity award grant, and additional expense or a reversal of expense may be recorded in subsequent periods based on changes in the assumptions used to calculate fair value, such as changes in market price, until the measurement date is reached and the compensation expense is finalized.

*In-process research and development.* All acquired research and development projects are recorded at their fair value as of the date acquisition. The fair values are assessed as of the balance sheet date to ascertain if there has been any impairment of the recorded value. If there is an impairment the asset is written down to its current fair value by the recording of an expense.

*Accruals for Clinical Research Organization and Clinical Site Costs.* We make estimates of costs incurred in relation to external clinical research organizations, or CROs, and clinical site costs. We analyze the progress of clinical trials, including levels of patient enrollment, invoices received and contracted costs when evaluating the adequacy of the amount expensed and the related prepaid asset and accrued liability. Significant judgments and estimates must be made and used in determining the accrued balance and expense in any accounting period. We review and accrue CRO expenses and clinical trial study expenses based on work performed and rely upon estimates of those costs applicable to the stage of completion of a study. Accrued CRO costs are subject to revisions as such trials progress to completion. Revisions are charged to expense in the period in which the facts that give rise to the revision become known. With respect to clinical site costs, the financial terms of these agreements are subject to negotiation and vary from contract to contract. Payments under these contracts may be uneven, and depend on factors such as the achievement of certain events, the successful recruitment of patients, the completion of portions of the clinical trial or similar conditions. The objective of our policy is to match the recording of expenses in our financial statements to the actual services received and efforts expended. As such, expense accruals related to clinical site costs are recognized based on our estimate of the degree of completion of the event or events specified in the specific clinical study or trial contract.

*Accounting Related to Goodwill.* As of December 31, 2011, there was approximately \$630,000 of goodwill on our consolidated balance sheet. Goodwill is reviewed for impairment annually, or when events arise that could indicate that an impairment exists. We test for goodwill impairment using a two-step process. The first step compares the fair value of the reporting unit with the unit's carrying value, including goodwill. When the carrying value of the reporting unit is greater than fair value, the unit's goodwill may be impaired, and the second step must be completed to measure the amount of the goodwill impairment charge, if any. In the second step, the implied fair value of the reporting unit's goodwill is compared with the carrying amount of the unit's goodwill. If the carrying amount is greater than the implied fair value, the carrying value of the goodwill must be written down to its implied fair value.

We are required to perform impairment tests annually, at December 31, and whenever events or changes in circumstances suggest that the carrying value of an asset may not be recoverable. For all of our acquisitions, various analyses, assumptions and estimates were made at the time of each acquisition that were used to determine the valuation of goodwill and intangibles. In future years, the possibility exists that changes in forecasts and estimates from those used at the acquisition date could result in impairment indicators.

*Accounting For Income Taxes.* In preparing our consolidated financial statements, we are required to estimate our income taxes in each of the jurisdictions in which we operate. This process involves management estimation of our actual current tax exposure and assessment of temporary differences resulting from differing treatment of items for tax and accounting purposes. These differences result in deferred tax assets and liabilities. We must then assess the likelihood that our deferred tax assets will be recovered from future taxable income and, to the extent we believe that recovery is not likely, we must establish a valuation allowance. To the extent we establish a valuation allowance or increase this allowance in a period, we must include an expense within the tax provision in the consolidated statement of operations. Significant management judgment is required in determining our provision for income taxes, our deferred tax assets and liabilities and any valuation allowance recorded against our net deferred tax assets. We have fully offset our deferred tax assets with a valuation allowance. Our lack of earnings history and the uncertainty surrounding our ability to generate taxable income prior to the reversal or expiration of such deferred tax assets were the primary factors considered by management in maintaining the valuation allowance.

## **RECENTLY ISSUED ACCOUNTING STANDARDS**

In June 2011, the FASB issued ASU No. 2011-05, “Comprehensive Income (Topic 220): Presentation of Comprehensive Income” (ASU 2011-05). The new standard eliminated the current option to report other comprehensive income and its components in the statement of changes in equity. Under the new standard, companies can elect to present items of net income and other comprehensive income in one continuous statement or in two separate, but consecutive statements. The new standard is effective at the beginning of fiscal years beginning after December 15, 2011, and, if applicable, we will comply with this requirement in the first quarter 2012.

In September 2011, the FASB issued Accounting Standards Update No. 2011-08, *Testing Goodwill for Impairment* (the revised standard). The new standard allows companies an option to first assess qualitative factors to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount as a basis for determining if it is necessary to perform the two-step quantitative goodwill impairment test. Under the new standard, a company is no longer required to calculate the fair value of a reporting unit unless the company determines, based on the qualitative assessment, that it is more likely than not that its fair value is less than its carrying amount. The new standard is effective for annual and interim goodwill impairment tests performed for fiscal years beginning after December 15, 2011.

## **ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURE ABOUT MARKET RISK.**

The primary objective of our investment activities is to preserve principal while maximizing our income from investments and minimizing our market risk. We invest in government and investment-grade corporate debt in accordance with our investment policy. Some of the securities in which we invest have market risk. This means that a change in prevailing interest rates, and/or credit risk, may cause the fair value of the investment to fluctuate. For example, if we hold a security that was issued with a fixed interest rate at the then-prevailing rate and the prevailing interest rate later rises, the fair value of our investment will probably decline. As of December 31, 2011, our portfolio of financial instruments consists of cash equivalents, including bank deposits. Due to the short-term nature of our investments, we believe there is no material exposure to interest rate risk, and/or credit risk, arising from our investments.

## **ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA.**

Our consolidated financial statements and the notes thereto, included in Part IV, Item 15(a), part 1, are incorporated by reference into this Item 8.

## **ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE.**

Not applicable.

## **ITEM 9A. CONTROLS AND PROCEDURES.**

*Evaluation of Disclosure Controls and Procedures.* As of December 31, 2011, we carried out an evaluation, under the supervision and with the participation of our Chief Executive Officer and our Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). Based upon that evaluation, our Chief Executive and Chief Financial Officers concluded that our disclosure controls and procedures were effective as of that date to ensure that information required to be disclosed in our reports filed or submitted under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms, and to ensure that information required to be disclosed by us in such reports is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure. There were no changes in our internal controls over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) during the quarter ended December 31, 2011 that have materially affected, or is reasonably likely to materially affect, our internal controls over financial reporting.

Our disclosure controls or internal controls over financial reporting were designed to provide only reasonable assurance that such disclosure controls or internal control over financial reporting will prevent all errors or all instances of fraud, even as the same are improved to address any deficiencies. The design of any system of controls is based in part upon certain assumptions about the likelihood of future events, and there can be only reasonable, not absolute assurance that any design will succeed in achieving its stated goals under all potential future conditions. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. Over time, controls may become inadequate because of changes in conditions or deterioration in the degree of compliance with policies or procedures. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs.

*Management's Report on Internal Control over Financial Reporting.* Our management is responsible for establishing and maintaining adequate internal control over financial reporting and for the assessment of the effectiveness of internal control over financial reporting. As defined by the SEC, internal control over financial reporting is a process designed by, or under the supervision of our principal executive and principal financial officers and effected by our Board of Directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the financial statements in accordance with U.S. generally accepted accounting principles.

Our internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect our transactions and dispositions of our assets; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of the financial statements in accordance with U.S. generally accepted accounting principles, and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In connection with the preparation of our annual financial statements, management has undertaken an assessment of the effectiveness of our internal control over financial reporting as of December 31, 2011, based on criteria established in Internal Control – Integrated framework issued by the Committee of Sponsoring Organizations of the Treadway Commission, or COSO Framework. Management's assessment included an evaluation of the design of our internal control over financial reporting and testing of the operational effectiveness of those controls.

Based on this evaluation, management has concluded that our internal control over financial reporting is not effective as of December 31, 2011. This conclusion was reached because a lack of segregation of duties exists, as all financial and accounting duties are performed by the Chief Financial Officer. The Company intends to address this deficiency by hiring additional accounting personnel in 2012 to alleviate the segregation of duties issue.

This annual report does not include an attestation report of our independent registered public accounting firm regarding internal control over financial reporting. Management's report was not subject to attestation by our independent registered public accounting firm pursuant to rules of the SEC that permit us to provide only management's report on internal control in this report.

*Limitations on the Effectiveness of Controls.* Our management, including our Chief Executive Officer and Chief Financial Officer, does not expect that our disclosure controls and procedures or our internal control over financial reporting will prevent all errors and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within our company have been detected.

**ITEM 9B. OTHER INFORMATION.**

Not Applicable.

**PART III**

**ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE.**

The information required by this Item is incorporated herein by reference from our Proxy Statement for our 2012 Annual Meeting of Stockholders.

**ITEM 11. EXECUTIVE COMPENSATION.**

The information required by this Item is incorporated herein by reference from our Proxy Statement for our 2012 Annual Meeting of Stockholders.

**ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS.**

The information required by this Item is incorporated herein by reference from our Proxy Statement for our 2012 Annual Meeting of Stockholders.

**ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE.**

The information required by this Item is incorporated herein by reference from our Proxy Statement for our 2012 Annual Meeting of Stockholders.

**ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES.**

The information required by this Item is incorporated herein by reference from our Proxy Statement for our 2012 Annual Meeting of Stockholders.

## PART IV

### ITEM 15. EXHIBITS and FINANCIAL STATEMENT SCHEDULES.

#### (a) 1. Consolidated Financial Statements

The following consolidated financial statements of Manhattan Pharmaceuticals, Inc. are filed as part of this report.

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#### 2. Consolidated Financial Statement Schedules

All schedules are omitted as the information required is inapplicable or the information is presented in the consolidated financial statements or the related notes.

#### 3. Exhibits

<b>Exhibit Number</b>	<b>Exhibit Description</b>
2.1	Agreement and Plan of Merger among the Registrant, Ariston Pharmaceuticals, Inc., and Ariston Merger Corp. dated March 8, 2010 (incorporated by reference to the Registrant's Current Report on Form 8-K filed March 12, 2010).
3.1	Certificate of Incorporation, as amended through September 25, 2003 (incorporated by reference to Exhibit 3.1 to the Registrant's Form 10-QSB for the quarter ended September 30, 2003).
3.2	Certificate of Designations of Series A Convertible Preferred Stock, dated October 31, 2003.
3.3	Certificate of Ownership Merging Tarpan Therapeutics, Inc. into the Registrant, dated December 28, 2006.
3.4	Certificate of Amendment to the Restated Certificate of Incorporation, dated November 30, 2009.
3.5	Certificate of Amendment to the Certificate of Incorporation, dated June 23, 2011 (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed on June 29, 2011).
3.6	Certificate of Designations, Preferences and Other Rights of Series A Preferred Stock, dated December 29, 2011 (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed on January 5, 2012).
3.7	Bylaws, as amended to date.
4.1	Specimen common stock certificate.
4.2	Form of Warrant issued to Noteholders on September 11, 2008 (incorporated by reference to Exhibit 10.2 to the Current Report on Form 8-K filed on September 15, 2008).
4.3	Form of Warrant issued to Noteholders on November 19, 2008 (incorporated by reference to Exhibit 10.6 to the Registrant's Current Report on Form 8-K filed on November 25, 2008).

- 10.1 1995 Stock Option Plan, as amended (incorporated by reference to Exhibit 10.18 to the Registrant's Form 10-QSB for the quarter ended September 30, 1996).
- 10.2 Form of Notice of Stock Option Grant issued to employees of the Registrant from April 12, 2000 to February 21, 2003 (incorporated by reference to Exhibit 99.2 of the Registrant's Registration Statement on Form S-8 filed March 24, 1998 (File 333-48531)).
- 10.3 Form of Stock Option Agreement issued to employees of the Registrant from April 12, 2000 to February 21, 2003 (incorporated by reference to Exhibit 99.3 to the Registrant's Registration Statement on Form S-8 filed March 24, 1998 (File 333-48531)).
- 10.4 2003 Stock Option Plan (incorporated by reference to Exhibit 4.1 to Registrant's Registration Statement on Form S-8 filed February 17, 2004).
- 10.5 Employment Agreement dated July 7, 2006 between the Registrant and Michael G. McGuinness (incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K filed July 12, 2006). †
- 10.6 Amendment No. 1 to the Employment Agreement between the Registrant and Michael McGuinness, dated November 19, 2008 (incorporated by reference to Exhibit 10.8 to the Registrant's Current Report on Form 8-K filed on November 25, 2008). †
- 10.7 Amendment No. 2 to the Employment Agreement between the Registrant and Michael McGuinness, dated December 15, 2011 (incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K filed on December 19, 2011). †
- 10.8 Summary terms of compensation plan for Registrant's non-employee directors (incorporated by reference to Exhibit 10.1 of Registrant's Current Report on Form 8-K filed February 5, 2007). †
- 10.9 Form of Stock Option Agreement issued under the Registrant's 2003 Stock Option Plan (incorporated by reference to Exhibit 10.15 to the Registrant's Form 10-KSB filed April 2, 2007).
- 10.10 Exclusive License Agreement for "Altoderm" between Thornton & Ross Ltd. and Manhattan Pharmaceuticals, Inc. dated April 3, 2007 (incorporated by reference to Exhibit 10.3 of the registrant's form 10-Q for the quarter ended June 30, 2007 filed on August 14, 2007).
- 10.11 Exclusive License Agreement for "Altolyn" between Thornton & Ross Ltd. and Manhattan Pharmaceuticals, Inc. dated April 3, 2007 (incorporated by reference to Exhibit 10.4 of the registrant's form 10-Q for the quarter ended June 30, 2007 filed on August 14, 2007).
- 10.12 Exclusive License Agreement for "Hedrin" between Thornton & Ross Ltd. , Kerris, S.A. and Manhattan Pharmaceuticals, Inc. dated June 26, 2007 (incorporated by reference to Exhibit 10.5 of the registrant's form 10-Q for the quarter ended June 30, 2007 filed on August 14, 2007).
- 10.13 Supply Agreement for "Hedrin" between Thornton & Ross Ltd. and Manhattan Pharmaceuticals, Inc. dated June 26, 2007 (incorporated by reference to Exhibit 10.6 of the Registrant's Form 10-Q for the quarter ended June 30, 2007 filed on August 14, 2007).
- 10.14 Joint Venture Agreement between Nordic Biotech Fund II K/S and Manhattan Pharmaceuticals, Inc. to develop and commercialize "Hedrin" dated January 31, 2008 (incorporated by reference to Exhibit 10.19 of the Registrant's Form 10-K filed March 31, 2008).
- 10.15 Amendment No. 1, dated February 25, 2008, to the Joint Venture Agreement between Nordic Biotech Fund II K/S and Manhattan Pharmaceuticals, Inc. to develop and commercialize "Hedrin" dated January 31, 2008 (incorporated by reference to Exhibit 10.20 to the Registrant's Form 10-K filed March 31, 2008).
- 10.16 Omnibus Amendment to Joint Venture Agreement and Additional Agreements, dated June 9, 2008, among Manhattan Pharmaceuticals, Inc., Hedrin Pharmaceuticals K/S, Hedrin Pharmaceuticals General Partner ApS and Nordic Biotech Venture Fund II K/S (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed June 13, 2008).



- 10.17 Assignment and Contribution Agreement between Hedrin Pharmaceuticals K/S and Manhattan Pharmaceuticals, Inc. dated February 25, 2008 (incorporated by reference to Exhibit 10.21 to the Registrant's Form 10-K filed March 31, 2008).
- 10.18 Registration Rights Agreement between Nordic Biotech Venture Fund II K/S and Manhattan Pharmaceuticals, Inc. dated February 25, 2008 (incorporated by reference to Exhibit 10.22 to the Registrant's Form 10-K filed March 31, 2008).
- 10.19 Letter Agreement, dated September 17, 2008, between Nordic Biotech Venture Fund II K/S and Manhattan Pharmaceuticals, Inc. (incorporated by reference to Exhibit 10.24 to the Registrant's Amended Registration Statement on Form S-1/A filed on October 3, 2008).
- 10.20 Form of Secured Promissory Note, dated September 11, 2008 (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed on September 15, 2008).
- 10.21 Form of warrant issued to Note Holders, dated September 11, 2008 (incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K filed on September 15, 2008).
- 10.22 Form of Placement Agent Warrant (incorporated by reference to Exhibit 10.9 to the Registrant's Current Report on Form 8-K filed on November 25, 2008).
- 10.23 Warrant, dated October 28, 2009 (incorporated by reference to Exhibit 10.3 to the Registrant's Current Report on Form 8-K filed on November 3, 2009).
- 10.24 Form of Placement Agent Warrant (incorporated by reference to Exhibit 10.4 to the Registrant's Current Report on Form 8-K filed on November 3, 2009).
- 10.25 Settlement and Release Agreement, dated January 4, 2011, by and among the Registrant, Nordic Biotech Venture Fund II K/S and H Pharmaceuticals K/S (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed on January 10, 2011).
- 10.26 Waiver and Forbearance Agreement, dated January 10, 2011 (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed on February 14, 2011).
- 10.27 Amended and Restated Convertible Promissory Note, dated March 1, 2011 (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed on March 7, 2011).
- 10.28 Amendment to Settlement Agreement and Promissory Note between the Registrant and Swiss Pharma Contract Ltd., dated December 13, 2011 (incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K filed on December 19, 2011).
- 10.29 Exchange Transaction Agreement dated December 29, 2011, by and among the Registrant, Opus Point Partners, LLC and TG Therapeutics, Inc. (incorporated by reference to Exhibit 10.1 to the Registrant's Form 8-K filed on January 5, 2012).
- 10.30 Employment Agreement, effective December 29, 2011, between the Registrant and Michael Weiss. †
- 10.31 Restricted Stock Subscription Agreement, effective December 29, 2011, between the Registrant and Michael Weiss. †
- 10.32 Employment Agreement, effective December 29, 2011, between the Registrant and Sean Power. †
- 10.33 Restricted Stock Subscription Agreement, effective December 29, 2011 between the Registrant and Sean Power. †
- 10.34 Form of Warrant issued to stockholders on December 29, 2011, January 31, 2012 and February 24, 2012.

- 10.35 License Agreement, dated January 30, 2012, by and among the Registrant, GTC Biotherapeutics, Inc., LFB Biotechnologies S.A.S. and LFB/GTC LLC. \*
- 23.1 Consent of Independent Registered Public Accounting Firm
- 31.1 Certification of Principal Executive Officer
- 31.2 Certification of Principal Financial Officer
- 32.1 Certifications pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

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† Indicates management contract or compensatory plan or arrangement.

\* Confidential treatment has been requested with respect to omitted portions of this exhibit.

**Manhattan Pharmaceuticals, Inc.**  
**Consolidated Financial Statements as of December 31, 2011**

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## Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders  
Manhattan Pharmaceuticals, Inc.

We have audited the accompanying consolidated balance sheet of Manhattan Pharmaceuticals, Inc. and Subsidiaries (a development stage company) as of December 31, 2011, and the related consolidated statement of operations, equity and cash flows for the year and cumulative period then ended. Manhattan Pharmaceuticals, Inc.'s management is responsible for these financial statements. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Manhattan Pharmaceuticals, Inc. and Subsidiaries as of December 31, 2011, and their results of operations and cash flows for the year and cumulative period then ended, in conformity with accounting principles generally accepted in the United States of America.

/s/ J.H. Cohn LLP

Roseland, New Jersey  
March 14, 2012

**Manhattan Pharmaceuticals, Inc.**  
(a development stage company)  
**Consolidated Balance Sheet as of December 31, 2011**

<b>Assets</b>	
Current assets:	
Cash and cash equivalents	\$ 9,748,491
Other current assets	87,176
Total current assets	9,835,667
In-process research and development	5,441,839
Goodwill	629,752
Total assets	\$ 15,907,258
<b>Liabilities and equity</b>	
Current liabilities:	
Notes payable, current portion, net	\$ 877,778
Accounts payable and accrued expenses	666,640
Interest payable, current portion	61,941
Total current liabilities	1,606,359
Notes payable, noncurrent portion, net	4,006,666
Interest payable, noncurrent portion	658,031
Total liabilities	6,271,056
Commitments and contingencies	
Equity:	
Preferred stock, \$0.001 par value per share (10,000,000 shares authorized, 413,388 issued and outstanding, aggregate liquidation value of \$8,267,760 at December 31, 2011)	413
Common stock, \$0.001 par value per share (500,000,000 shares authorized, 284,683,977 shares issued and outstanding at December 31, 2011)	284,684
Contingently issuable shares	15,890
Additional paid-in capital	10,176,608
Deficit accumulated in development stage	(853,074)
Total stockholder's equity	9,624,521
Non-controlling interest in subsidiary	11,681
Total equity	9,636,202
Total liabilities and equity	\$ 15,907,258

*The accompanying notes are an integral part of the consolidated financial statements.*

**Manhattan Pharmaceuticals, Inc.**  
(a development stage company)  
**Consolidated Statement of Operations for the Year and Cumulative Period Ended December 31, 2011**

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Costs and expenses	
Research and development	\$ 327,283
General and administrative:	
Non-cash compensation	86,494
Other general and administrative	468,197
Total general and administrative	554,691
Total operating expenses	881,974
Operating loss	(881,974)
Interest expense	7,097
Consolidated net loss	(889,071)
Net loss attributable to non-controlling interest	(35,997)
Net loss attributable to Manhattan Pharmaceuticals, Inc. and subsidiaries	\$ (853,074)
Basic and diluted net loss per common share	\$ (0.00)*
Weighted average shares used in computing basic and diluted net loss per common share	108,348,538

\*Amount less than \$0.01.

*The accompanying notes are an integral part of the consolidated financial statements.*

**Manhattan Pharmaceuticals, Inc.**  
(a development stage company)  
**Consolidated Statement of Equity for the Year and Cumulative Period Ended December 31, 2011**

	<u>Preferred Stock</u>		<u>Common stock</u>		<u>Additional paid-in capital</u>	<u>Contingently issuable shares</u>	<u>Non-controlling interest in subsidiary</u>	<u>Deficit Accumulated in the development stage</u>	<u>Total</u>
	<u>Shares</u>	<u>Amount</u>	<u>Shares</u>	<u>Amount</u>					
Common stock issued to founders in exchange for seed capital in April 2011			140,625,000	\$ 140,625	\$ (34,047)				\$ 106,578
Stock issued at \$0.04 per share in exchange for license option			7,425,000	7,425	289,575				297,000
Issuance of restricted stock to employees			64,687,500	64,688	(63,538)				1,150
Effect of reverse acquisition	281,250	\$ 281	(140,651,656)	(140,652)	399,767	\$ 15,890	\$ 47,678		322,964
Conversion of note payable to preferred stock	2,763	3			55,268				55,271
Issuance of replacement restricted preferred stock to employees	129,375	129	(64,687,500)	(64,688)	64,559				—
Common stock issued at \$0.04 per share, net of expenses			277,285,633	277,286	9,378,530				9,655,816
Compensation in respect of restricted preferred stock granted to employees					86,494				86,494
Net loss							(35,997)	\$ (853,074)	(889,071)
Balance at December 31, 2011	<u>413,388</u>	<u>\$ 413</u>	<u>284,683,977</u>	<u>\$ 284,684</u>	<u>\$ 10,176,608</u>	<u>\$ 15,890</u>	<u>\$ 11,681</u>	<u>\$ (853,074)</u>	<u>\$ 9,636,202</u>

*The accompanying notes are an integral part of the consolidated financial statements.*

**Manhattan Pharmaceuticals, Inc.**  
(a development stage company)  
**Consolidated Statement of Cash Flows for the Year and Cumulative Period Ended December 31, 2011**

**CASH FLOWS FROM OPERATING ACTIVITIES**

Consolidated net loss	\$ (889,071)
Adjustments to reconcile consolidated net loss to cash flows used in operating activities:	
Stock compensation expense	86,494
Stock issued in exchange for license option	297,000
Changes in assets and liabilities, net of effects of acquisition:	
Decrease in other current assets	3,593
Increase in accounts payable and accrued expenses	408,310
Increase in interest payable	7,097
Net cash used in operating activities	<u>(86,577)</u>

**CASH FLOWS FROM INVESTING ACTIVITIES**

Cash acquired in connection with acquisition	<u>10,386</u>
Net cash provided by investing activities	<u>10,386</u>

**CASH FLOWS FROM FINANCING ACTIVITIES**

Proceeds from sale of common stock, net	<u>9,824,682</u>
Net cash provided by financing activities	<u>9,824,682</u>

**NET INCREASE IN CASH AND CASH EQUIVALENTS** 9,748,491

Cash and cash equivalents at beginning of year —

**CASH AND CASH EQUIVALENTS AT END OF YEAR** \$ 9,748,491

**NON-CASH TRANSACTIONS**

Conversion of notes payable to preferred stock	\$ 55,271
Accrued financing costs	\$ 61,138

*The accompanying notes are an integral part of the consolidated financial statements.*



**Manhattan Pharmaceuticals, Inc.**  
**(a development stage company)**  
**Notes to the Consolidated Financial Statements**

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Unless the context requires otherwise, references in this report to “Manhattan,” “Company,” “we,” “us” and “our” refer to Manhattan Pharmaceuticals, Inc. and our subsidiaries.

**NOTE 1 - ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

**DESCRIPTION OF BUSINESS**

We are a biopharmaceutical company focused on the acquisition, development and commercialization of innovative and medically important pharmaceutical products for the treatment of cancer and other underserved therapeutic needs. We aim to acquire rights to these technologies by licensing or otherwise acquiring an ownership interest, funding their research and development and eventually out-licensing or bringing the technologies to market. Currently we are developing TGTX-1101 (ublituximab), a novel, third generation monoclonal antibody that targets a specific and unique epitope on the CD20 antigen found on mature B-lymphocytes. We also hold the development rights to AST-726 a nasally delivered product for the treatment of Vitamin B<sub>12</sub> deficiency, and AST-915 is an orally delivered treatment for essential tremor.

***Exchange Transaction with TG Therapeutics, Inc. and its majority shareholders***

On December 29, 2011, the Company entered into and consummated an Exchange Transaction Agreement with Opus Point Partners, LLC (“Opus”) and TG Therapeutics, Inc. (“TG”) (the “Agreement”). Under the Agreement, Opus exchanged (the “Exchange Transaction”) its shares of common stock in TG (“TG Common Stock”) for shares of Series A preferred stock in the Company (“Company Preferred Stock”). As a result Opus received 281,250 shares of Company Preferred Stock. Each share of Company Preferred Stock is convertible into 500 shares of the common stock of the Company (“Company Common Stock”) provided that such conversion rights are subject to sufficient available authorized shares of Company Common Stock. At the effective time of the Exchange Transaction, the Company Preferred Stock issued in the Exchange Transaction represented approximately 95 percent of the Company’s outstanding voting stock after giving effect to the merger. Since the stockholders of TG received the majority of the voting shares of the Company, the merger was accounted for as a reverse acquisition whereby TG was the accounting acquirer (legal acquiree) and the Company was the accounting acquiree (legal acquirer) under the acquisition method of accounting. TG Therapeutics, Inc. was incorporated in Delaware in November 2010, but did not commence operations until April 2011, thus the accompanying historical financial statements of TG consists of only 2011. The results of the combined operations have been included in the Company’s financial statements since December 29, 2011.

The filings with the Securities and Exchange Commission (the “SEC”) include the historical financial results of TG Therapeutics, Inc. as of and for the period ending December 31, 2011 and Manhattan Pharmaceuticals, and its subsidiary only as of and for the period commencing December 29, 2011, the date of the reverse acquisition, and will hereafter collectively be referred to as the Company.

**LIQUIDITY AND CAPITAL RESOURCES**

We have incurred operating losses since our inception, and expect to continue to incur operating losses for the foreseeable future and may never become profitable. As of December 31, 2011, we have an accumulated deficit of \$853,074.

Our primary source of cash has been proceeds from the private placement of equity securities. We have not yet commercialized any of our drug candidates and cannot be sure if we will ever be able to do so. Even if we commercialize one or more of our drug candidates, we may not become profitable. Our ability to achieve profitability depends on a number of factors, including our ability to obtain regulatory approval for our drug candidates, successfully complete any post-approval regulatory obligations and successfully commercialize our drug candidates alone or in partnership. We may continue to incur substantial operating losses even if we begin to generate revenues from our drug candidates.

As of December 31, 2011, we had \$9.7 million in cash, and cash equivalents. We currently anticipate that our cash and cash equivalents as of December 31, 2011, inclusive of our 2011 Equity PIPE closings subsequent to December 31, 2011, to be sufficient to fund our anticipated operating cash requirements for approximately 24-30 months from December 31, 2011. The actual amount of cash that we will need to operate is subject to many factors, including, but not limited to, the timing, design and conduct of clinical trials for our drug candidates. We are dependent upon significant financing to provide the cash necessary to execute our current operations, including the commercialization of any of our drug candidates.

On December 30, 2011, we completed the first closing of the private placement of our securities, issuing 277,285,633 shares of Company Common Stock at a price per share of \$0.04 for total gross proceeds, before placement commissions and expenses, of \$11,091,425 (the "2011 Equity PIPE"). Investors also received warrants to purchase 69,321,424 shares of Company Common Stock. The warrants have an exercise price of \$0.04 per share and are exercisable for five years. The shares of Company Common Stock and warrants sold in the initial closing were offered and sold to accredited investors, including members of management, without registration under the Securities Act of 1933, as amended (the "Securities Act"), or state securities laws, in reliance on the exemptions provided by Section 4(2) of the Securities Act, and Regulation D promulgated thereunder and in reliance on similar exemptions under applicable state laws. Accordingly, the securities to be issued in the Offering have not been registered under the Securities Act, and until so registered, these securities may not be offered or sold in the United States absent registration or availability of an applicable exemption from registration. The placement agent received cash commissions equal to 10% of the gross proceeds of the Offering, five-year warrants to purchase shares of the Company's stock equal to 10% of shares sold in the Offering, and a non-accountable expense allowance equal to two percent of the gross proceeds of the Offering for their expenses (not including up to \$80,000 of legal expenses and any blue sky fees, both of which were reimbursed by the Company).

In 2012, we completed two additional closings of the 2011 Equity PIPE. These closings were held on January 31, 2012, and February 24, 2012. In these closings, the Company issued 695,428 shares of our Series A Preferred Stock ("Preferred Stock") at a price per share of \$20.00 for total gross proceeds, before placement commissions and expenses, of \$13,908,560. Each share of Series A Preferred Stock is convertible into 500 shares of Company Common Stock provided that such conversion rights are subject to sufficient available authorized shares of Company Common Stock, which the Company intends to accomplish through the amendment of its Certificate of Incorporation, or a reverse stock split, at the next meeting of stockholders. Investors will also receive warrants to purchase 86,928,500 shares of Company Common Stock. The warrants have an exercise price of \$0.04 per share and are exercisable for five years. The shares of Preferred Stock and warrants sold in these closings were offered and sold to accredited investors, including members of management, without registration under the Securities Act, or state securities laws, in reliance on the exemptions provided by Section 4(2) of the Securities Act, and Regulation D promulgated thereunder and in reliance on similar exemptions under applicable state laws. Accordingly, the securities to be issued in the Offering have not been registered under the Securities Act, and until so registered, these securities may not be offered or sold in the United States absent registration or availability of an applicable exemption from registration. The placement agent received cash commissions equal to 10% of the gross proceeds of the Offering, five-year warrants to purchase shares of the Company's stock equal to 10% of shares sold in the Offering, and a non-accountable expense allowance equal to two percent of the gross proceeds of the Offering for their expenses.

Our common stock is quoted on the OTC Bulletin Board and trades under the symbol "TGTX.OB."

## **2011 MANAGEMENT CHANGES**

In connection with the Exchange Transaction with TG Therapeutics, Inc., effective December 29, 2011, Douglas Abel, David C. Shimko and Richard Steinhart resigned from their positions on the Board of Directors of the Company. Michael McGuinness resigned both his seat as a director and as an officer of the Company, effective December 29, 2011.

Effective December 29, 2011, Michael S. Weiss was appointed Executive Chairman, Interim Chief Executive Officer and President of the Company. In connection with the appointment, the Company assumed Mr. Weiss' employment agreement with TG, effective November 1, 2011, under which Mr. Weiss is to serve as the Company's Executive Chairman, Interim Chief Executive Officer and President until such employment is terminated pursuant to the terms of the agreement.

Under the terms of his employment agreement, Michael S. Weiss will receive an annual base salary of \$225,000 (which will automatically be reduced by 50% when Mr. Weiss resigns from his interim roles). Mr. Weiss will also be eligible to earn an annual cash performance bonus, based upon achievement of annual performance goals and objectives set by agreement between Mr. Weiss and the Board each year, with a target bonus of 100% of his base salary.

The Company will also grant Mr. Weiss a number of shares of restricted common stock equal to 1.25% of the shares of Common Stock outstanding on the date of grant on a fully-diluted basis. Each of these annual grants of restricted stock will vest and become non-forfeitable as to 25% of the shares on the first anniversary of the respective date of grant, as to 25% of the shares on the second anniversary of the respective date of grant and as to 50% of the shares on the date that the "market capitalization" (as defined in the employment agreement) is \$100 million greater than the market capitalization on the respective date of grant, provided that Mr. Weiss remains an employee, director and/or consultant of the Company through each vesting date.

In connection with the Exchange Transaction and the appointment of Mr. Weiss to his position, the Company issued replacement awards and granted 112,500 shares of Series A Preferred Stock, to Mr. Weiss on December 29, 2011. Each share of Series A Preferred Stock is convertible into 500 shares of the registrant's Common Stock, provided that such conversion right is subject to sufficient available authorized shares of the registrant's common stock. The shares vest as follows: 14,063 on each of November 15, 2012, November 15, 2013, November 15, 2014, and November 15, 2015; 28,125 upon the occurrence of the registrant achieving a particular market capitalization target; and 28,125 upon the occurrence of the registrant achieving a second particular market capitalization target.

Effective December 29, 2011, Sean A. Power was appointed Chief Financial Officer, Treasurer and Secretary of the Company. In connection with the appointment, the Company assumed Mr. Power's employment agreement with TG, effective November 1, 2011, under which Mr. Power is to serve as the Company's Chief Financial Officer, Treasurer and Secretary until such employment is terminated pursuant to the terms of the agreement.

Under the terms of his employment agreement, Sean A. Power will receive an annual base salary of \$135,000. Mr. Power will also be eligible to earn an annual cash performance bonus, based upon achievement of annual performance goals and objectives set by agreement between Mr. Power and the board each year, with a target bonus of 33% of his base salary.

The Company will grant Mr. Power a number of shares of restricted common stock of the Company as determined by the CEO and board. Each of these annual grants of restricted stock will be subject to vesting terms, which will be determined at the time of grant by the CEO and Board.

In connection with the Exchange Transaction and the appointment of Mr. Power to his position, the Company issued replacement awards and granted 16,875 shares of Series A Preferred Stock, to Mr. Power on December 29, 2011. Each share of Series A Preferred Stock is convertible into 500 shares of the registrant's Common Stock, provided that such conversion right is subject to sufficient available authorized shares of the registrant's common stock. The shares vest as follows: 2,812 on each of November 15, 2012, November 15, 2013, and November 15, 2014; 4,219 upon the occurrence of the registrant achieving a particular market capitalization target; and 4,220 upon the occurrence of the registrant achieving a second particular market capitalization target.

#### **RECENTLY ISSUED ACCOUNTING STANDARDS**

In June 2011, the FASB issued ASU No. 2011-05, "Comprehensive Income (Topic 220): Presentation of Comprehensive Income" (ASU 2011-05). The new standard eliminated the current option to report other comprehensive income and its components in the statement of changes in equity. Under the new standard, companies can elect to present items of net income and other comprehensive income in one continuous statement or in two separate, but consecutive statements. The new standard is effective at the beginning of fiscal years beginning after December 15, 2011, and, if applicable, we will comply with this requirement in the first quarter 2012.

In September 2011, the FASB issued Accounting Standards Update No. 2011-08, *Testing Goodwill for Impairment* (the revised standard). The new standard allows companies an option to first assess qualitative factors to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount as a basis for determining if it is necessary to perform the two-step quantitative goodwill impairment test. Under the new standard, a company is no longer required to calculate the fair value of a reporting unit unless the company determines, based on the qualitative assessment, that it is more likely than not that its fair value is less than its carrying amount. The new standard is effective for annual and interim goodwill impairment tests performed for fiscal years beginning after December 15, 2011.

## **BASIS OF PRESENTATION**

The Company has not generated any revenue from its operations and, accordingly, the financial statements have been prepared in accordance with the provisions of accounting and reporting for Development Stage Enterprises.

## **USE OF ESTIMATES**

The preparation of financial statements in conformity with U.S. generally accepted accounting principles (“GAAP”) requires management to make estimates and judgments that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the applicable reporting period. Actual results could differ from those estimates. Such differences could be material to the financial statements.

## **CASH AND CASH EQUIVALENTS**

We treat liquid investments with original maturities of less than three months when purchased as cash and cash equivalents.

## **RESEARCH AND DEVELOPMENT COSTS**

Research and development costs are expensed as incurred. Nonrefundable advance payments for goods or services that will be used or rendered for future research and development activities are deferred and amortized over the period that the goods are delivered or the related services are performed, subject to an assessment of recoverability. We make estimates of costs incurred in relation to external clinical research organizations, or CROs, and clinical site costs. We analyze the progress of clinical trials, including levels of patient enrollment, invoices received and contracted costs when evaluating the adequacy of the amount expensed and the related prepaid asset and accrued liability. Significant judgments and estimates must be made and used in determining the accrued balance and expense in any accounting period. We review and accrue CRO expenses and clinical trial study expenses based on work performed and rely upon estimates of those costs applicable to the stage of completion of a study. Accrued CRO costs are subject to revisions as such trials progress to completion. Revisions are charged to expense in the period in which the facts that give rise to the revision become known. With respect to clinical site costs, the financial terms of these agreements are subject to negotiation and vary from contract to contract. Payments under these contracts may be uneven, and depend on factors such as the achievement of certain events, the successful recruitment of patients, the completion of portions of the clinical trial or similar conditions. The objective of our policy is to match the recording of expenses in our financial statements to the actual services received and efforts expended. As such, expense accruals related to clinical site costs are recognized based on our estimate of the degree of completion of the event or events specified in the specific clinical study or trial contract.

## **IN-PROCESS RESEARCH AND DEVELOPMENT**

All acquired research and development projects are recorded at their fair value as of the date acquisition. The fair values are assessed as of the balance sheet date to ascertain if there has been any impairment of the recorded value. If there is an impairment, the asset is written down to its current fair value by the recording of an expense. Impairment is tested on an annual basis, and consists of a comparison of the fair value of the in-process research and development with its carrying amount.

## **INCOME TAXES**

Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to temporary differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases, operating losses and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in operations in the period that includes the enactment date. If the likelihood of realizing the deferred tax assets or liability is less than “more likely than not,” a valuation allowance is then created.

We, and our subsidiaries, file income tax returns in the U.S. Federal jurisdiction and in various states. We have tax net operating loss carryforwards that are subject to examination for a number of years beyond the year in which they were generated for tax purposes. Since a portion of these net operating loss carryforwards may be utilized in the future, many of these net operating loss carryforwards will remain subject to examination.

We recognize interest and penalties related to uncertain income tax positions in income tax expense.

## **STOCK - BASED COMPENSATION**

We recognize all share-based payments to employees and to non-employee directors as compensation for service on our board of directors as compensation expense in the consolidated financial statements based on the fair values of such payments. Stock-based compensation expense recognized each period is based on the value of the portion of share-based payment awards that is ultimately expected to vest during the period. Forfeitures are estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates.

For share-based payments to consultants and other third-parties, compensation expense is determined at the “measurement date.” The expense is recognized over the vesting period of the award. Until the measurement date is reached, the total amount of compensation expense remains uncertain. We record compensation expense based on the fair value of the award at the reporting date. The awards to consultants and other third-parties are then revalued, or the total compensation is recalculated based on the then current fair value, at each subsequent reporting date. The Company did not grant any consultant options during the year ended December 31, 2011.

## **BASIC AND DILUTED NET (LOSS) INCOME PER COMMON SHARE**

Basic net income (loss) per common share is calculated by dividing net income (loss) applicable to common shares by the weighted-average number of common shares outstanding for the period. Diluted net loss per common share is the same as basic net income (loss) per common share, since potentially dilutive securities from stock options, stock warrants and convertible preferred stock would have an antidilutive effect either because the Company incurred a net loss during the period presented or because such potentially dilutive securities were out of the money and the Company realized net income during the period presented. The amounts of potentially dilutive securities excluded from the calculation were 326,981,188 at December 31, 2011. During the year ended December 31, 2011 the Company incurred a net loss, therefore all of the dilutive securities are excluded from the computation of diluted earnings per share.

## **IMPAIRMENT**

Long lived assets are reviewed for an impairment loss when circumstances indicate that the carrying value of long-lived tangible and intangible assets with finite lives may not be recoverable. Management’s policy in determining whether an impairment indicator exists, a triggering event, comprises measurable operating performance criteria as well as qualitative measures. If an analysis is necessitated by the occurrence of a triggering event, we make certain assumptions in determining the impairment amount. If the carrying amount of an asset exceeds its estimated future cash flows, an impairment charge is recognized.

Goodwill is reviewed for impairment annually, or when events arise that could indicate that an impairment exists. We test for goodwill impairment using a two-step process. The first step compares the fair value of the reporting unit with the unit's carrying value, including goodwill. When the carrying value of the reporting unit is greater than fair value, the unit's goodwill may be impaired, and the second step must be completed to measure the amount of the goodwill impairment charge, if any. In the second step, the implied fair value of the reporting unit's goodwill is compared with the carrying amount of the unit's goodwill. If the carrying amount is greater than the implied fair value, the carrying value of the goodwill must be written down to its implied fair value. We will continue to perform impairment tests annually, at December 31, and whenever events or changes in circumstances suggest that the carrying value of an asset may not be recoverable.

#### NOTE 2 – CASH AND CASH EQUIVALENTS

	<u>December 31, 2011</u>
Money market funds	\$ —
Checking and bank deposits	9,748,491
Total	\$ 9,748,491

#### NOTE 3 – ACQUISITION

On December 29, 2011 the Company completed a reverse acquisition of privately held TG Therapeutics, Inc. ("TG"), a Delaware Corporation. The acquisition was effected pursuant to an Exchange Transaction Agreement (the "Agreement") dated December 29, 2011 by and among the Company, TG Therapeutics, Inc. and Opus Point Partners, LLC, the largest shareholder of TG. In accordance with the terms of the Agreement, 95% of the holders of common shares of TG (one (1) minority shareholders of TG holding in aggregate 132,000 common shares of TG did not participate) surrendered their TG common shares. The Agreement caused the Company to issue to TG's shareholders 281,250 shares of the Company's Series A preferred stock, par value \$0.001 (the "Company Preferred Stock"). Each share of Company Preferred Stock is convertible into 500 shares of the common stock of the Company ("Company Common Stock") provided that such conversion rights are subject to sufficient available authorized shares of Company Common Stock. The Company Preferred Stock has the same voting rights (on an as-converted basis), and other attributes as Company Common Stock. The Company Preferred Stock will automatically be exchanged for Company Common Stock when sufficient authorized shares are available to allow for such conversion. The Company Preferred Stock issued in connection with the Agreement, provided the former TG shareholders with direct and/or indirect ownership of approximately 95% of the Company's outstanding common stock immediately following the consummation of the transaction.

The Company Preferred Stock issued (and the underlying Company Common Stock once converted) are not registered for resale and, therefore, shall remain subject to the rights and restrictions of Rule 144. All Company Preferred Stock received by the TG shareholders in exchange for their shares of TG common stock will not be registered for resale prior to six (6) months following December 29, 2011 and, therefore, shall remain subject to the rights and restrictions of Rule 144 prior to any such registration.

The Company Preferred Stock issued in connection with the agreement provided the former TG shareholders with direct and/or indirect ownership of approximately 95% of the Company's outstanding common stock as of December 29, 2011. Based on fair value of the Company's common stock of \$0.04 per share, the purchase price was \$295,933, plus the fair value of restricted stock assumed of \$82,305. In connection with the Exchange Transaction, the Company incurred \$231,580 of acquisition related costs.

A summary of the purchase price calculation is as follows:

Number of shares of Manhattan common stock outstanding at the time of the transaction		7,398,344	
Multiplied by Manhattan's fair value of the Common Stock	\$	0.04	\$ 295,933
Fair value of restricted stock assumed			82,305
Total purchase price	\$		<u>378,238</u>

The purchase price has been allocated as follows based on the fair values of the assets and liabilities acquired:

Cash and cash equivalents	\$	10,386
Other assets		90,769
In-process research and development acquired		5,441,840
Total identifiable assets		<u>5,542,995</u>
Accounts payable and accrued expenses		197,191
Notes payable (ICON and Swiss Pharma)		939,718
5% notes payable and accrued interest		4,657,600
Total identifiable liabilities		<u>5,794,509</u>
Net identifiable assets (liabilities)		<u>(251,514)</u>
Goodwill		629,752
Total	\$	<u>378,238</u>

A valuation using the guidance in ASC 805 was performed to determine the fair value of certain identifiable intangible assets of Manhattan.

The fair value of certain identifiable intangible assets was determined using the income approach. This method starts with a forecast of the expected future net cash flows. These cash flows are then adjusted to present value by applying an appropriate discount rate that reflects the risk of achieving the asset's projected cash flows. The present value of the estimated cash flows are then added to the present value equivalent of the residual value of the asset, if any, at the end of the discrete projection period to estimate the fair value.

The valuations are based on information that is available as of the acquisition date and the expectations and assumptions that have been deemed reasonable by our management. No assurance can be given, however, that the underlying assumptions or events associated with such assets will occur as projected. For these reasons, among others, the actual results may vary from the projected results.

The following supplemental pro forma information presents the financial results as if the transaction had occurred on January 1, 2011 for the year ended December 31, 2011. This supplemental pro forma information has been prepared for comparative purposes and does not purport to be indicative of what would have occurred had the acquisition been made on January 1, 2011, nor are they indicative of future results.

Revenue	\$	—
Net loss	\$	(818,279)
Basic and diluted loss per common share	\$	(0.00)*

\*Amount less than \$0.01

#### NOTE 4 – STOCKHOLDERS' EQUITY

##### *Preferred Stock*

Our amended and restated certificate of incorporation authorizes the issuance of up to 10,000,000 shares of preferred stock, \$0.001 par value, with rights senior to those of our common stock, issuable in one or more series. Upon issuance, the Company can determine the rights, preferences, privileges and restrictions thereof. These rights, preferences and privileges could include dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences, sinking fund terms and the number of shares constituting any series or the designation of such series, any or all of which may be greater than the rights of common stock.

There were 413,388 shares of preferred stock outstanding as of December 31, 2011. In connection with the Exchange Transaction with TG Therapeutics, Inc., on December 29, 2011, the Company filed a Certificate of Designation with respect to its Series A Preferred Stock with the Secretary of State of the State of Delaware. The Company Preferred Stock ranks senior to the Company Common Stock with regard to dividend rights, and has a liquidation preference of \$20 per share over the Company Common Stock and any other junior securities. The Company Preferred Stock is automatically convertible into 500 shares of Company Common Stock provided that prior to conversion, the Company has sufficient authorized Company Common Stock to effect such conversion. The Company Preferred Stock also automatically converts upon a change of control of the Company or the sale of substantially all of the assets of the Company. The Series A Preferred Stock votes on an as-converted basis with the Common Stock.

### **Common Stock**

Our amended and restated certificate of incorporation authorizes the issuance of up to 500,000,000 shares of \$0.001 par value common stock.

On December 30, 2011, we completed the first closing of the private placement of our securities, issuing 277,285,633 shares of Company Common Stock at a price per share of \$0.04 for total gross proceeds, before placement commissions and expenses, of \$11,091,425 (the "2011 Equity PIPE"). Investors will also receive warrants to purchase 69,321,424 shares of Company Common Stock. The warrants have an exercise price of \$0.04 per share and are exercisable for five years. The shares of Company Common Stock and warrants sold in the initial closing were offered and sold to accredited investors, including members of management, without registration under the Securities Act, or state securities laws, in reliance on the exemptions provided by Section 4(2) of the Securities Act, and Regulation D promulgated thereunder and in reliance on similar exemptions under applicable state laws. Accordingly, the securities to be issued in the offering have not been registered under the Securities Act, and until so registered, these securities may not be offered or sold in the United States absent registration or availability of an applicable exemption from registration. The placement agent received cash commissions equal to 10% of the gross proceeds of the offering, five-year warrants to purchase shares of the Company's stock equal to 10% of shares sold in the offering, and a non-accountable expense allowance equal to two percent of the gross proceeds of the offering for their expenses (not including up to \$80,000 of legal expenses and any blue sky fees, both of which were reimbursed by the Company).

In 2012, we completed two additional closings of the 2011 Equity PIPE. These closings were held on January 31, 2012, and February 24, 2012. In these closings, the Company issued 695,428 shares of our Series A Preferred Stock ("Preferred Stock") at a price per share of \$20.00 for total gross proceeds, before placement commissions and expenses, of \$13,908,560. Each share of Series A Preferred Stock is convertible into 500 shares of Company Common Stock provided that such conversion rights are subject to sufficient available authorized shares of Company Common Stock, which the Company intends to accomplish through the amendment of its Certificate of Incorporation, or a reverse stock split, at the next meeting of stockholders. Investors also received warrants to purchase 86,928,500 shares of Company Common Stock. The warrants have an exercise price of \$0.04 per share and are exercisable for five years. The shares of Preferred Stock and warrants sold in these closings were offered and sold to accredited investors, including members of management, without registration under the Securities Act, or state securities laws, in reliance on the exemptions provided by Section 4(2) of the Securities Act, and Regulation D promulgated thereunder and in reliance on similar exemptions under applicable state laws. Accordingly, the securities to be issued in the offering have not been registered under the Securities Act, and until so registered, these securities may not be offered or sold in the United States absent registration or availability of an applicable exemption from registration. The placement agent received cash commissions equal to 10% of the gross proceeds of the offering, five-year warrants to purchase shares of the Company's stock equal to 10% of shares sold in the offering, and a non-accountable expense allowance equal to two percent of the gross proceeds of the offering for their expenses.



On December 19, 2011, Opus Point Partners, LLC loaned the Company \$55,271 in operating funds. Effective at the closing of the Exchange Transaction, the parties agreed to convert the loan into shares of Company Preferred Stock at the same exchange ratio used in the Exchange Transaction and Opus received 2,763 shares of Company Preferred Stock.

### Equity Incentive Plans

We have in effect the following stock option and incentive plans.

a. The Company has shareholder-approved incentive stock option plans for employees under which it has granted non-qualified and incentive stock options. At December 31, 2011, 300,000 shares were authorized for issuance. The options have a maximum term of 10 years and vest over a period determined by the Company's Board of Directors (generally 3 years) and are issued at an exercise price equal to or greater than the fair market value of the shares at the date of grant. At December 31, 2011 options to purchase 166,337 shares were outstanding, 556 shares of common stock were issued and there were 133,107 shares reserved for future grants under the Plan.

b. In July 1995, the Company established the 1995 Stock Option Plan (the "1995 Plan"), which provided for the granting of options to purchase up to 2,600 shares of the Company's common stock to officers, directors, employees and consultants. The 1995 Plan was amended several times to increase the number of shares reserved for stock option grants. In June 2005, the 1995 Plan expired and no further options can be granted. At December 31, 2011 options to purchase 22,346 shares were outstanding and no shares were reserved for future stock option grants under the 1995 Plan.

A summary of the status of the Company's stock options as of December 31, 2011 and changes during the period then ended is presented below:

### Stock Options

The following table summarizes stock option activity for the year ended December 31, 2011:

	<u>Number of shares</u>	<u>Weighted- average exercise price</u>	<u>Weighted- average Contractual Term (in years)</u>	<u>Aggregate Intrinsic Value</u>
Outstanding at January 1, 2011	—	—		
Assumed in Exchange Transaction	231,499	\$ 24.37	5.60	
Granted	—	—		
Exercised	—	—		
Forfeited	(20,330)	3.51		
Expired	(22,486)	51.78		
Outstanding at December 31, 2011	<u>188,683</u>	<u>\$ 23.33</u>	6.39	<u>\$ —</u>
Vested and expected to vest at December 31, 2011	<u>188,683</u>	<u>\$ 23.33</u>	6.39	<u>\$ —</u>
Exercisable at December 31, 2011	<u>188,017</u>	<u>\$ 23.40</u>	6.39	<u>\$ —</u>

As of December 31, 2011, the total compensation cost related to unvested option awards not yet recognized is less than \$1,000. The weighted average period over which it is expected to be recognized is approximately 1 year.

## Restricted Stock

Certain employees have been awarded restricted Series A preferred stock. The restricted stock vesting consists of milestone and time-based vesting. The following table summarizes restricted share activity for the year ended December 31, 2011:

	<b>Number of Shares Restricted Series A Preferred Stock<sup>(1)</sup></b>	<b>Weighted Average Grant Date Fair Value</b>	<b>Aggregate Intrinsic Value</b>
Outstanding at January 1, 2011	—	\$ —	—
Granted	129,375	20.00	—
Vested	—	—	—
Forfeited	—	—	—
Outstanding at December 31, 2011	<u>129,375</u>	<u>\$ 20.00</u>	<u>\$ 1,306,688</u>

<sup>(1)</sup> The restricted Series A preferred stock listed in the table above was granted in connection with the Exchange Transaction to certain executives as discussed above. Each share of Series A Preferred Stock is convertible into 500 shares of the registrant's Common Stock, provided that such conversion right is subject to sufficient available authorized shares of the registrant's common stock.

Total expense associated with restricted stock was \$86,494 during the year-ended December 31, 2011.

## Warrants

The following table summarizes warrant activity for the year ended December 31, 2011:

	<b>Warrants</b>	<b>Weighted- Average exercise price</b>	<b>Aggregate Intrinsic Value</b>
Outstanding at January 1, 2011	—	\$ —	—
Assumed in Exchange Transaction	22,130,436	0.26	\$ —
Issued	97,049,924	0.04	—
Exercised	—	—	—
Expired	—	—	—
Outstanding at December 31, 2011	<u>119,180,360</u>	<u>\$ 0.08</u>	<u>\$ —</u>

As discussed above, as part of the initial closing of the private placement of our securities completed on December 30, 2011, we issued warrants to purchase up to 69,321,424 shares of our common stock, none of which have been exercised as of December 31, 2011. The warrants have an exercise price of \$0.04 per warrant share. In addition, we issued to the placement agent in the transaction warrants to purchase up to 27,728,500 shares of our common stock at an exercise price of \$0.044 per warrant share, none of which have been exercised as of December 31, 2011.

## ***Stock-Based Compensation***

The fair value of stock options granted is estimated at the date of grant using the Black-Scholes pricing model. The expected term of options granted is derived from historical data and the expected vesting period. Expected volatility is based on the historical volatility of our common stock. The risk-free interest rate is based on the U.S. Treasury yield for a period consistent with the expected term of the option in effect at the time of the grant. We have assumed no expected dividend yield, as dividends have never been paid to stock or option holders and will not be paid for the foreseeable future. The Company did not grant any stock options during the year-ended December 31, 2011.

The following table summarizes stock-based compensation expense information about stock options and restricted stock for the years ended December 31, 2011:

	<u>2011</u>
Stock-based compensation expense associated with restricted stock	\$ 86,494
Stock-based compensation expense associated with option grants	—
	<u>\$ 86,494</u>

#### NOTE 5 – NOTES PAYABLE

The following is a summary of Notes payable:

	<u>December 31, 2011</u>		
	<u>Current portion, net</u>	<u>Non-current portion, net</u>	<u>Total</u>
Non-interest Bearing Note Payable, Net	\$ 200,000	\$ -	\$ 200,000
Convertible 5% Notes Payable	-	4,006,666	4,006,666
ICON Convertible Note	677,778	-	677,778
Total	<u>\$ 877,778</u>	<u>\$ 4,006,666</u>	<u>\$ 4,884,444</u>

We assumed the preceding notes payable as the result of the Exchange Transaction between the Company and TG Therapeutics, Inc. Accordingly, a valuation using the guidance in ASC 805 was performed and these notes have been presented at their fair value on the date of the transaction.

#### *Non-interest Bearing Note Payable*

In October 2009, Manhattan entered into a Settlement Agreement and Mutual Release with Swiss Pharma Contract LTD (“Swiss Pharma”) pursuant to which Manhattan agreed to pay Swiss Pharma \$200,000 and issue to Swiss Pharma an interest free promissory note due on October 27, 2011 in the principal amount of \$250,000 in full satisfaction of a September 5, 2008 arbitration award. In November 2011, Manhattan renegotiated the \$250,000 promissory note due October 27, 2011 in which the amount of the promissory note was reduced to \$200,000 and the maturity date was extended to February 15, 2012. This amount was paid on February 14, 2012 in full settlement of this note.

#### *Convertible 5% Notes Payable*

On March 8, 2010, Manhattan entered into an Agreement and Plan of Merger (the “Merger Agreement”) by and among the Company, Ariston Pharmaceuticals, Inc., a Delaware corporation (“Ariston”) and Ariston Merger Corp., a Delaware corporation and wholly-owned subsidiary of the Company (the “Merger Sub”). Pursuant to the terms and conditions set forth in the Merger Agreement, on March 8, 2010, the Merger Sub merged with and into Ariston (the “Merger”), with Ariston being the surviving corporation of the Merger. As a result of the Merger, Ariston became a wholly-owned subsidiary of Manhattan.

The 5% Notes and accrued and unpaid interest thereon are convertible at the option of the holder into the Manhattan’s common stock at the conversion price of \$20 per share. Ariston agreed to make quarterly payments on the 5% Notes equal to 50% of the net product cash flow received from the exploitation or commercialization of Ariston’s product candidates, AST-726 and AST-915. The 5% Notes are solely the obligation of Ariston and have no recourse to Manhattan other than the conversion feature discussed above. Interest accrues monthly, is added to principal on an annual basis, every March 8, and is payable at maturity.

In connection with the Exchange Transaction between the Company and TG Therapeutics, Inc., the Company performed a valuation of the assets and liabilities of Manhattan immediately prior to the transaction. As these notes payable are tied directly to net product cash flows derived from the preexisting products of the Company, this note was recorded at fair value as of the date of the Exchange Transaction. The Company recorded approximately \$7,000 of interest expense on the 5% Notes, during the year ended December 31, 2011.

### ICON Convertible Note Payable

In connection with the merger with Ariston as discussed above, Ariston satisfied an account payable of \$1,275,188 to ICON Clinical Research Limited (“ICON”) through the payment of \$275,188 in cash and the issuance of a three-year 5% note payable (the “ICON Note”). The principal was to be repaid in 36 monthly installments of \$27,778 commencing in April 2010. Interest was payable monthly in arrears. On March 1, 2011 Ariston entered into an amended and restated convertible promissory note (the “Amended ICON Note”) with ICON. The principal terms of the Amended ICON Note are that monthly payments of principal and interest will be waived for the thirteen month period ended December 31, 2011 (the “Waiver Period”) in exchange for a single payment of \$100,000 on March 31, 2011, an increase in the interest on the Amended ICON Note from 5% to 8% per annum during the Waiver Period and a balloon payment on January 31, 2012. The Amended ICON Note is convertible at the option of the holder into the Company’s common stock at the conversion price of \$10 per share. During the year ended December 31, 2011 (the period subsequent to the TG Therapeutics exchange transaction), the Company has immaterial interest expense on the Amended ICON Note. At December 31, 2011 the principal amount of the Amended ICON Note was \$677,778, of which the entire balance has been classified as current, and interest payable on the Amended ICON Note was \$61,941, and is reflected as components of notes payable, current portion, net, and interest payable, current portion, net respectively, in the accompanying balance sheet as of December 31, 2011. This note is currently in default as the Company did not make the balloon payment due on January 31, 2012.

### NOTE 6 – INCOME TAXES

We account for income taxes under the asset and liability method. Deferred tax assets and liabilities are determined based on differences between the financial reporting and tax basis of assets and liabilities and are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. A valuation allowance is established when necessary to reduce deferred tax assets to the amount expected to be realized. In determining the need for a valuation allowance, management reviews both positive and negative evidence, including current and historical results of operations, future income projections and the overall prospects of our business. Based upon management's assessment of all available evidence, we believe that it is more-likely-than-not that the deferred tax assets will not be realizable; and therefore, a valuation allowance is established. The valuation allowance for deferred tax assets was \$29,408,000 as of December 31, 2011.

As of December 31, 2011, we have U.S. net operating loss carryforwards (“NOL’s”) of approximately \$69,382,000. For income tax purposes, these NOL’s will expire in various amounts through 2030. The Tax Reform Act of 1986 contains provisions which limit the ability to utilize net operating loss carryforwards in the case of certain events including significant changes in ownership interests. The recent exchange transaction with TG might have resulted in “change in ownership” as defined by IRC Section 382 of the Internal Revenue Code of 1986, as amended. Accordingly, a substantial portion of the Company’s net operating loss carryforwards above may be subject to annual limitations in reducing any future year’s taxable income.

The tax effects of temporary differences that give rise to significant portions of the deferred tax assets and deferred tax liabilities at December 31, 2011 are presented below.

Deferred tax assets (liabilities):	
Net operating loss carryforwards	\$ 27,611,000
Research and development credit	1,858,000
Non-cash compensation	1,735,000
Acquired in-process research and development	(2,220,000)
Other	424,000
Deferred tax asset, excluding valuation allowance	29,408,000
Less valuation allowance	(29,408,000)
Net deferred tax assets	\$ —

There was no current or deferred income tax expense for the year ended December 31, 2011. Income tax expense differed from amounts computed by applying the US federal income tax rate of 34% to pretax loss as follows:

(in thousands)	For the year ended December 31, 2011
Consolidated net loss, as reported in the consolidated statements of operations	\$ (889,071)
Computed "expected" tax benefit	(302,284)
Increase (decrease) in income taxes resulting from:	
Expected expense (benefit) from state & local taxes	(60,457)
Research and development credits	(75,000)
Other	(277)
Change in the balance of the valuation allowance for deferred tax assets allocated to income tax expense	(438,018)
	<u>\$ —</u>

We file income tax returns in the U.S. Federal and various state and local jurisdictions. With certain exceptions, the Company is no longer subject to U.S. Federal and state income tax examinations by tax authorities for years prior to 2008. However, net operating loss carryforwards and tax credits generated from those prior years could still be adjusted upon audit.

The Company recognizes interest and penalties to uncertain tax position in income tax expense in the statement of operations. There was no accrual for interest and penalties related to uncertain tax positions for 2011. We do not believe that there will be a material change in our unrecognized tax positions over the next twelve months. All of the unrecognized tax benefits, if recognized, would be offset by the valuation allowance.

#### NOTE 7 – LICENSE AGREEMENTS

In April 2011, TG Therapeutics, Inc., acquired from LFB Biotechnologies, a fully owned subsidiary of France based LFB S.A., an option (the "License Option") for exclusive worldwide rights (except France/Belgium) to develop and market ublituximab ("TGTX-1101"), a monoclonal antibody that targets a specific epitope on the B-cell lymphocyte CD20 antigen. In exchange for the License Option TG issued 132,000 shares of its common stock to LFB.

On January 30, 2012, TG Therapeutics exercised the License Option and entered into an exclusive license agreement with LFB Biotechnologies, GTC Biotherapeutics, and LFB/GTC LLC, all wholly-owned subsidiaries of LFB Group, relating to the development of ublituximab. Under the license agreement, we have acquired the exclusive worldwide rights (exclusive of France/Belgium) for the development and commercialization of TGTX-1101 (ublituximab). To date, we have made no payments to LFB Group and LFB Group is eligible to receive payments of up to an aggregate of approximately \$31.0 million upon our successful achievement of certain clinical development, regulatory and sales milestones, in addition to royalty payments on net sales of ublituximab. The license will terminate on a country by country basis upon the expiration of the last licensed patent right or 15 years after the first commercial sale of a product in such country, unless the agreement is earlier terminated.

In connection with the license agreement, TG Therapeutics issued 7,368,000 shares of its common stock to LFB, and the Company agreed to contribute \$15 million, less applicable fees and expenses associated with the financing, to TG Therapeutics to fund the development of ublituximab under the license agreement, in exchange for 7,500,000 shares of TG Therapeutics common stock.

#### NOTE 8 – JOINT VENTURE

On April 19, 2011, H Pharmaceuticals K/S (the "Hedrin JV"), of which the Company was a 15% limited partner at the time, filed a demand for arbitration against Thornton & Ross, LTD. ("T&R") with respect to alleged breaches by T&R of an Exclusive License Agreement (the "Hedrin License") dated June 28, 2007, which was originally entered into between the Company and T&R, and which the Company assigned in 2008 to the Hedrin JV, with T&R's consent. The Hedrin JV is seeking damages from T&R in the amount of approximately \$7,000,000. The Company was not a party to the initial arbitration demand.

On May 20, 2011, T&R filed an answer to the arbitration demand in which T&R asserted counterclaims against the Hedrin JV for alleged breaches by the Hedrin JV of the Hedrin License and for declaratory relief that the Hedrin License was properly terminated by T&R. In addition, T&R impleaded an individual (who is not associated with the Company), Nordic Biotech Venture Fund II K/S (an investment fund) and the Company, demanding arbitration against them based on alleged breaches of the Hedrin License and other related claims. The Company has recently been removed by the arbitrator as a party to the arbitration. T&R is seeking damages of approximately \$20,000,000.

The Hedrin JV and T&R held a mediation session in order to avoid the arbitration process. The mediation process did not produce a result. Nordic has recently made an additional capital contribution to the Hedrin JV in order to fund the arbitration. As a result of that capital contribution the Company now owns a 13% interest in the Hedrin JV. The arbitration process is ongoing.

#### **NOTE 9 – RELATED PARTY TRANSACTIONS**

On December 30, 2011, OPN Capital Markets (“OPNCM”) and its affiliated broker-dealer, National Securities Corporation (“NSC” and collectively with OPNCM, “National”), both affiliates of National Holdings Corporation (“National Holdings”), entered into a Placement Agency Agreement (the “PAA”) with the Company in connection with the initial closing of the offering of up to \$25 million of stock and warrants of the Company (the “Offering”). Pursuant to the PAA, National acted as the Company’s placement agent for Offering.

Michael S. Weiss, is a director and Non-Executive Chairman of the Board of Directors of National Holdings. He is also a stockholder of National Holdings and, when combined with his ownership indirectly through Opus and its affiliates, beneficially owns 23.6% of National Holdings, the parent company of NSC. Mr. Weiss disclaims such beneficiary ownership other than to the extent of his pecuniary interest. In addition, Opus and NSC are parties to a 50/50 joint venture that shares profits from OPNCM, the investment banking division of NSC that is responsible for managing the Offering.

The Company completed the initial closing of the Offering on December 30, 2011, issuing 277,285,633 shares of Common Stock at a price per share of \$0.04 for total gross proceeds, before placement commissions and expenses, of \$11,091,425. Investors also received warrants to purchase 69,321,424 shares of Common Stock. The warrants have an exercise price of \$0.04 per share and are exercisable for five years. The Company completed the second closing of the Offering on January 31, 2012, issuing 489,199 shares of Series A Preferred Stock at a price per share of \$20.00 for gross proceeds, before placement commissions and expenses of \$9,783,980. Investors also received warrants to purchase 61,149,875 shares of Common Stock. The warrants have an exercise price of \$0.04 per share and are exercisable for five years. The Company completed the third and final closing of the Offering on February 24, 2012, issuing 206,229 shares of Series A Preferred Stock at a price per share of \$20.00 for gross proceeds, before placement commissions and expenses of 4,124,580. Investors also received warrants to purchase 25,778,625 shares of Common Stock. The warrants have an exercise price of \$0.04 per share and are exercisable for five years.

As placement agent, National received cash commissions equal to 10% of the gross proceeds of the Offering, five-year warrants to purchase shares of the Series A Preferred Stock equal to 10% of shares sold in the Offering, and a non-accountable expense allowance equal to two percent of the gross proceeds of the Offering for National’s expenses (not including up to \$80,000 of National’s legal expenses and any blue sky fees, both of which the Company also reimbursed). In addition to acting as placement agent in the Offering, National provided advisory services in connection with the Exchange Transaction. National is entitled to receive an advisory fee of \$150,000 for such services.

## NOTE 10 – SUBSEQUENT EVENTS

As discussed above in Note 4, in 2012 we completed two additional closings of the 2011 Equity PIPE. These closings were held on January 31, 2012, and February 24, 2012. In these closings, the Company issued 695,428 shares of our Series A Preferred Stock (“Preferred Stock”) at a price per share of \$20.00 for total gross proceeds, before placement commissions and expenses, of \$13,908,560. Each share of Series A Preferred Stock is convertible into 500 shares of Company Common Stock provided that such conversion rights are subject to sufficient available authorized shares of Company Common Stock, which the Company intends to accomplish through the amendment of its Certificate of Incorporation, or a reverse stock split, at the next meeting of stockholders. Investors also received warrants to purchase 86,928,500 shares of Company Common Stock. The warrants have an exercise price of \$0.04 per share and are exercisable for five years.

As discussed above in Note 7, On January 30, 2012, TG Therapeutics exercised the License Option and entered into an exclusive license agreement with LFB Biotechnologies, GTC Biotherapeutics, and LFB/GTC LLC, all wholly-owned subsidiaries of LFB Group, relating to the development of ublituximab. Under the license agreement, we have acquired the exclusive worldwide rights (exclusive of France/Belgium) for the development and commercialization of TGT-1101 (ublituximab). To date, we have made no payments to LFB Group and LFB Group is eligible to receive payments of up to an aggregate of approximately \$31.0 million upon our successful achievement of certain clinical development, regulatory and sales milestones, in addition to royalty payments on net sales of ublituximab. The license will terminate on a country by country basis upon the expiration of the last licensed patent right or 15 years after the first commercial sale of a product in such country, unless the agreement is earlier terminated.

In connection with the license agreement, TG Therapeutics issued 7,368,000 shares of its common stock to LFB, and the Company agreed to contribute \$15 million, less applicable fees and expenses associated with the financing, to TG Therapeutics to fund the development of ublituximab under the license agreement, in exchange for 7,500,000 shares of TG Therapeutics common stock.

In addition, in connection with the issuance of 7,368,000 TG Therapeutics shares, the Company and TG Therapeutics provided LFB Group, the option to, in its sole discretion, elect to convert all, and not less than all, of the TG Therapeutics’ shares into 828,900 shares of Manhattan’s Series A Preferred Stock, \$0.001 par value per share. Each share of Manhattan preferred stock shall be convertible into 500 shares of Manhattan’s common stock, \$0.001 par value per share, in accordance with the terms of the Series A Preferred Stock Certificate of Designation filed with the Secretary of State of the State of Delaware on December 29, 2011. In addition, should Manhattan have sufficient common stock authorized and available for issuance at the time the Purchaser elects to convert, then Purchaser will receive such number of shares of Manhattan Common Stock into which the Manhattan Preferred Stock is then convertible. This option may be exercised by LFB Group at any time within 60 days of the filing of Manhattan’s Annual Report on Form 10-K for the year ended December 31, 2011.

Furthermore, should LFB Group choose to exercise the option for Manhattan preferred stock, the Board of Directors of Manhattan shall appoint an individual designated by LFB Group to serve as a director of Manhattan until the next annual meeting of the stockholders and until his or her successor has been duly elected. Thereafter the Board of Manhattan shall nominate a designee named by LFB Group for election at each annual meeting of the stockholders until such time as LFB Group owns less than 10% of the outstanding Common Stock of Manhattan.

## SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: March 14, 2012

### MANHATTAN PHARMACEUTICALS, INC.

By: /s/ Michael S. Weiss

**Michael S. Weiss**

**Executive Chairman, Interim Chief Executive  
Officer and President**

## POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints each of Michael S. Weiss and Sean A. Power, his true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for him and his name, place and stead, in any and all capacities, to sign any or all amendments to this annual report on Form 10-K, and to file the same, with all exhibits thereto and other documents in connection therewith, with the SEC, granting unto said attorney-in-fact and agent, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent or any of his substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, this Form 10-K has been signed by the following persons on behalf of the Registrant on March 14, 2012, and in the capacities indicated:

<b>Signatures</b>	<b>Title</b>
<u>/s/ Michael S. Weiss</u> Michael S. Weiss	Executive Chairman, Interim Chief Executive Officer and President (principal executive officer)
<u>/s/ Sean A. Power</u> Sean A. Power	Chief Financial Officer (principal financial and accounting officer)
<u>/s/ Neil Herskowitz</u> Neil Herskowitz	Director



## EXHIBIT INDEX

<b>Exhibit Number</b>	<b>Exhibit Description</b>
3.2	Certificate of Designations of Series A Convertible Preferred Stock, dated October 31, 2003.
3.3	Certificate of Ownership Merging Tarpan Therapeutics, Inc. into the Registrant, dated December 28, 2006.
3.4	Certificate of Amendment to the Restated Certificate of Incorporation, dated November 30, 2009.
3.7	Bylaws, as amended to date.
4.1	Specimen common stock certificate.
10.30	Employment Agreement, effective December 29, 2011, between the Registrant and Michael Weiss. †
10.31	Restricted Stock Subscription Agreement, effective December 29, 2011, between Registrant and Michael Weiss. †
10.32	Employment Agreement, effective December 29, 2011, between the Registrant and Sean Power. †
10.33	Restricted Stock Subscription Agreement, effective December 29, 2011 between the Registrant and Sean Power. †
10.34	Form of Warrant issued to stockholders on December 29, 2011, January 31, 2012 and February 24, 2012.
10.35	License Agreement, dated January 30, 2012, by and among the Registrant, GTC Biotherapeutics, Inc., LFB Biotechnologies S.A.S. and LFB/GTC LLC. *
23.1	Consent of Independent Registered Public Accounting Firm
31.1	Certification of Principal Executive Officer
31.2	Certification of Principal Financial Officer
32.1	Certifications pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

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† Indicates management contract or compensatory plan or arrangement.

\* Confidential treatment has been requested with respect to omitted portions of this exhibit.

CERTIFICATE OF DESIGNATIONS

of

SERIES A CONVERTIBLE PREFERRED

STOCK

of

MANHATTAN PHARMACEUTICALS, INC.

Pursuant to Section 151(g) of the  
General Corporation Law of the State of Delaware

MANHATTAN PHARMACEUTICALS, INC., a corporation organized and existing under the laws of the State of Delaware (the "Corporation"), does hereby certify that, pursuant to the authority conferred on the Board of Directors of the Corporation by the Certificate of Incorporation, as amended and restated to date (the "Certificate of Incorporation"), of the Corporation and in accordance with Section 151(g) of the General Corporation Law of the State of Delaware, the Board of Directors of the Corporation adopted the following resolution establishing a series of One Million Five Hundred Thousand (1,500,000) shares of Preferred Stock of the Corporation designated as "Series A Convertible Preferred Stock":

RESOLVED, that pursuant to the authority conferred on the Board of Directors of this Corporation by the Certificate of Incorporation, a series of Preferred Stock, par value \$0.001 per share, of the Corporation is hereby established and created, and that the designation and number of shares thereof and the voting and other powers, preferences and relative, participating, optional or other rights of the shares of such series and the qualifications, limitations and restrictions thereof are as follows:

1. Designation and Amount. There shall be a series of Preferred Stock designated as "Series A Convertible Preferred Stock" and the number of shares constituting such series shall be one million five hundred thousand (1,500,000). Such series is referred to herein as the "Series A Preferred Stock" and shall have a stated value (the "Stated Value") of \$10.00 per share. The Series A Preferred Stock shall, with respect to dividend rights, have the entitlements set forth herein and shall, with respect to rights on liquidation, dissolution and winding up of the affairs of the Corporation, rank senior to all classes of Common Stock of the Corporation and, subject to the rights of any series of Preferred Stock that may from time to time come into existence providing that the Series A Preferred Stock shall rank junior or senior thereto, other equity securities of the Corporation. Such number of shares may be decreased by resolution of the Board of Directors of the Corporation; *provided, however*, that no decrease shall reduce the number of shares of Series A Preferred Stock to less than the number of shares then issued and outstanding and payable with respect to dividends.

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2. Dividends and Distributions. (a) Commencing on the date issued, the holders of the Series A Preferred Stock shall be entitled to receive cumulative dividends on each share of Series A Preferred Stock, payable in kind, at the rate of 5% per annum (computed on the basis of a 365-day year) of the Dividend Base Amount (as defined below), payable semi-annually in arrears. Such dividends shall be paid in additional duly authorized, fully-paid and non-assessable shares of Series A Preferred Stock. Such dividends shall accrue and accumulate whether or not they have been declared and whether or not there are profits, surplus or other funds of the Corporation legally available for the payment of dividends. The "Dividend Base Amount" shall be \$10.00 plus all accrued but unpaid dividends (subject to appropriate adjustment to reflect any stock split, combination, reclassification or reorganization of the Series A Preferred Stock). The number of shares to be paid upon any payment in kind dividend for purposes of this Section 2(a) shall be the amount of the dividend divided by the Stated Value (subject to appropriate adjustment to reflect any stock split, combination, reclassification or reorganization of the Series A Preferred Stock).

(b) In addition to the foregoing, subject to the prior and superior rights of the holders of any shares of any series or class of capital stock ranking prior and superior to the shares of Series A Preferred Stock with respect to dividends, the holders of shares of Series A Preferred Stock shall be entitled to receive, as, when and if declared by the Board of Directors of the Corporation, out of assets legally available for that purpose, dividends or distributions in cash, stock or otherwise payable to the holders of Common Stock on an as converted basis.

(c) Any dividend or distribution (other than that referenced in Section 2(b)) payable to the holders of the Series A Preferred Stock pursuant to this Section 2 shall be paid to such holders at the same time as the dividend or distribution on the Junior Stock (as defined below) or any other capital stock of the Company by which it is measured is paid.

(d) All dividends or distributions declared upon the Series A Preferred Stock shall be declared pro rata per share.

(e) Any reference to "distribution" contained in this Section 2 shall not be deemed to include any distribution made in connection with or in lieu of any Liquidation Event (as defined below).

(f) "Junior Stock" shall mean the Common Stock and any shares of preferred stock of any series or class of the Corporation, whether presently outstanding or hereafter issued, which are junior to the shares of Series A Preferred Stock with respect to (i) the distribution of assets on any Liquidation Event (as defined below), (ii) dividends or (iii) voting.

3. Liquidation Preference. (a) In the event of a (i) liquidation, dissolution or winding up of the Corporation, whether voluntary or involuntary, (ii) a sale of all or substantially all of the assets of the Corporation or (iii) voluntary or involuntary bankruptcy of the Corporation (subparagraphs (i), (ii) and (iii) being collectively referred to as a "Liquidation Event"), after payment or provision for payment of debts and other liabilities of the Corporation, the holders of the Series A Preferred Stock then outstanding shall be entitled to be paid out of the assets of the Corporation available for distribution to its stockholders, whether such assets are capital, surplus, or earnings, before and in preference to any payment or declaration and setting apart for payment of any amount shall be made in respect of any Junior Stock, an amount equal to \$10.00 per share plus an amount equal to all declared and/or unpaid dividends thereon. In the case of property or in the event that any such securities are restricted, the value of such property or securities shall be determined by agreement between the Corporation and the holders of a majority of the shares of Series A Preferred Stock then outstanding. If upon any Liquidation Event, whether voluntary or involuntary, the assets to be distributed to the holders of the Series A Preferred Stock shall be insufficient to permit the payment to such stockholders of the full preferential amounts aforesaid, then all of the assets of the Corporation to be distributed shall be so distributed ratably to the holders of the Series A Preferred Stock on the basis of the number of shares of Series A Preferred Stock held. A consolidation or merger of the Corporation with or into another corporation shall not be considered a Liquidation Event and, accordingly, the Corporation shall make appropriate provision to ensure that the terms of this Certificate of Designations survive any such transaction. All shares of Series A Preferred Stock shall rank as to payment upon the occurrence of any Liquidation Event senior to the Common Stock as provided herein and, unless the terms of such other series shall provide otherwise, senior to all other series of the Corporation's preferred stock.

(b) Upon the completion of the distribution required by subparagraph (a) of this Section 3 and subject to any other distribution that may be required with respect to any series of Preferred Stock that may from time to time come into existence, the remaining assets of the Corporation available for distribution to stockholders shall be distributed among the holders of Common Stock pro rata based on the number of shares of Common Stock held by the holders of Common Stock.

(c) Any securities or other property to be delivered to the holders of the Series A Preferred Stock pursuant to Section 3(a) hereof shall be valued as follows:

(i) Securities not subject to an investment letter or other similar restriction on free marketability:

(A) If traded on a securities exchange or on Nasdaq (as defined below), or if actively traded over-the-counter, the value shall be deemed to be the Market Price (as defined below) of the securities as of the date of valuation.

(B) If there is no such active public market for the securities, the value shall be the Fair Market Value (as defined below) of the securities.

(ii) The "Market Price" of a security shall mean the volume weighted average price of such security, for five consecutive trading days, ending with the day prior to the date as of which the Market Price is being determined, calculated by adding the aggregate dollars traded for every transaction in such 5-day period (price multiplied by the number of shares traded) and then dividing by the total shares traded during the 5-day period.

(iii) The “Fair Market Value” of any asset (including any security) means the fair market value thereof as mutually determined by the Corporation and the holders of a majority (measured in terms of voting power) of the outstanding shares of Series A Preferred Stock.

(iv) The “Closing Price” for any security for each trading day shall be the reported closing price of such security on the national securities exchange on which such security is listed or admitted to trading, or, if such security is not listed or admitted to trading on any national securities exchange, shall mean the reported closing price of such security on the Nasdaq SmallCap Market or the Nasdaq National Market System (collectively referred to as “Nasdaq”) or, if such security is not listed or admitted to trading on any national securities exchange or quoted on Nasdaq, shall mean the reported closing price of such security on the principal securities exchange on which such security is listed or admitted to trading or, if such security is not listed or admitted to trading on a national securities exchange, quoted on Nasdaq or listed or admitted to trading on any other securities exchange, shall mean the closing or last sale price in the over-the-counter market.

(v) “Trading day” shall mean a day on which the securities exchange or Nasdaq used to determine the Closing Price is open for the transaction of business or the reporting of trades or, if the Closing Price is not so determined, a day on which such securities exchange is open for the transaction of business.

(vi) If the holders of a majority of the Series A Preferred Stock and the Corporation are unable to reach agreement on any valuation matter, such valuation shall be submitted to and determined by a nationally recognized independent investment bank selected by the Board of Directors of the Corporation and the holders of a majority of the Series A Preferred Stock (or, if such selection cannot be agreed upon promptly, or in any event within ten days, then such valuation shall be made by a nationally recognized independent investment banking firm selected by the American Arbitration Association in New York City in accordance with its rules), the costs of which valuation shall be paid for by the Corporation.

#### 4. Conversion.

(a) Right of Conversion. The shares of Series A Preferred Stock shall be convertible, in whole or in part, at the option of the holder thereof and upon notice to the Corporation as set forth in Section 4(c) below, into fully paid and nonassessable shares of Common Stock and such other securities and property as hereinafter provided. The initial conversion price per share of Common Stock is \$1.10 (the “Conversion Price”) and shall be subject to adjustment as provided herein. The rate at which each share of Series A Preferred Stock is convertible at any time into Common Stock (the “Conversion Rate”) shall be determined by dividing the then existing Conversion Price into \$10.00.

(b) Dividends Upon Conversion. Upon conversion, all accrued and unpaid dividends (whether or not declared) on the Series A Preferred Stock, if any, shall be cancelled.

(c) Conversion Procedures. (1) Any holder of shares of Series A Preferred Stock desiring to convert such shares into Common Stock pursuant to Section 4(a) hereof shall surrender the certificate or certificates evidencing such shares of Series A Preferred Stock at the office of the transfer agent for the Series A Preferred Stock (the "Transfer Agent"), which certificate or certificates, if the Corporation shall so require, shall be duly endorsed to the Corporation or in blank, or accompanied by proper instruments of transfer to the Corporation or in blank, accompanied by irrevocable written notice to the Corporation that the holder elects so to convert such shares of Series A Preferred Stock and specifying the name or names (with address) in which a certificate or certificates evidencing shares of Common Stock are to be issued. The Corporation need not deem a notice of conversion to be received unless the holder complies with all the provisions hereof. The Corporation will instruct the Transfer Agent (which may be the Corporation) to make a notation of the date that a notice of conversion is received, which date shall be deemed to be the date of receipt for purposes hereof, so long as receipt is prior to 4:00 p.m. New York City Time on a Trading Day and otherwise shall be deemed to be received on the next following Trading Day.

(2) The Corporation shall, as soon as practicable after such deposit of certificates evidencing shares of Series A Preferred Stock accompanied by the written notice and compliance with any other conditions herein contained, deliver to the person for whose account such shares of Series A Preferred Stock were so surrendered, or to the nominee or nominees of such person, certificates evidencing the number of full shares of Common Stock to which such person shall be entitled as aforesaid, together with a cash adjustment of any fraction of a share as hereinafter provided. Subject to the following provisions of this paragraph, such conversion shall be deemed to have been made as of the date of receipt (in accordance with the third sentence of Section 4(c)(1) hereof) of the shares of Series A Preferred Stock to be converted, and the person or persons entitled to receive the Common Stock deliverable upon conversion of such Series A Preferred Stock shall be treated for all purposes as the record holder or holders of such Common Stock on such date; *provided, however*, that the Corporation shall not be required to convert any shares of Series A Preferred Stock while the stock transfer books of the Corporation are closed for any purpose, but the surrender of Series A Preferred Stock for conversion during any period while such books are so closed shall become effective for conversion immediately upon the reopening of such books as if the surrender had been made on the date of such reopening, and the conversion shall be at the conversion rate in effect on such date.

(3) All notices of conversion shall be irrevocable; *provided, however*, that if the Corporation has sent notice of an event pursuant to Section 4(h) hereof, a holder of Series A Preferred Stock may, at its election, provide in its notice of conversion that the conversion of its shares of Series A Preferred Stock shall be contingent upon the occurrence of the record date or effectiveness of such event (as specified by such holder), provided that such notice of conversion is received by the Corporation prior to such record date or effective date, as the case may be.

(d) Mandatory Conversion. The Series A Preferred Stock shall automatically be converted into fully paid and non-assessable shares of Common Stock at the then effective Conversion Price as set forth in Section 4(a) upon the earlier to occur of (a) the date on which the Corporation completes a financing in which gross proceeds exceed \$10,000,000 at a pre-money valuation greater than or equal to \$30,000,000 (a “Qualified Financing”) or (b) in the event that the Closing Price of the Company’s Common Stock exceeds 200% of the Conversion Price for 20 consecutive trading days (a “Trading Event”). Any shares of Series A Preferred Stock so converted shall be treated as having been surrendered by the holder thereof for conversion pursuant to Section 4 on the date of such mandatory conversion (unless previously converted at the option of the holder).

(e) Adjustment of Conversion Rate and Conversion Price. In case of any reclassification, capital reorganization or other change of outstanding shares of Common Stock, or in case of any consolidation or merger of the Corporation with or into another entity (other than a consolidation or merger in which the Corporation is the continuing entity and which does not result in any reclassification, capital reorganization or other change of outstanding shares of Common Stock other than the number thereof), or in case of any sale or conveyance to another entity of the property of the Corporation as, or substantially as, an entirety (other than a sale/leaseback, mortgage or other financing transaction), the Corporation shall cause effective provision to be made so that each holder of a share of Series A Preferred Stock shall be entitled to receive, upon conversion of such share of Series A Preferred Stock, the kind and number of shares of stock or other securities or property (including cash) receivable upon such reclassification, capital reorganization or other change, consolidation, merger, sale or conveyance by a holder of the number of shares of Common Stock into which such share of Series A Preferred Stock was convertible immediately prior to such reclassification, capital reorganization or other change, consolidation, merger, sale or conveyance. Any such provision shall include provision for adjustments that shall be as nearly equivalent as may be practicable to the adjustments provided for in this Section 4(e). The Corporation shall not effect any such reclassification, capital reorganization or other change, consolidation, merger, sale or conveyance unless prior to or simultaneously with the consummation thereof the successor (if other than the Corporation) resulting from such transaction or the entity purchasing assets or other appropriate entity shall assume, by written instrument executed and delivered to a duly authorized and appointed registrar and transfer agent of the Series A Preferred Stock (the “Transfer Agent”), the obligation to deliver to the holder of each share of Series A Preferred Stock such shares of stock, securities or assets as, in accordance with the foregoing provisions, such holders may be entitled to receive and the other obligations under this Certificate of Designations. The foregoing provisions shall similarly apply to successive reclassifications, capital reorganizations and other changes of outstanding shares of Common Stock and to successive consolidations, mergers, sales or conveyances.

(f) No Fractional Shares. No fractional shares or scrip representing fractional shares of Common Stock shall be issued upon conversion of Series A Preferred Stock. If more than one certificate evidencing shares of Series A Preferred Stock shall be surrendered for conversion at one time by the same holder, the number of full shares issuable upon conversion thereof shall be computed on the basis of the aggregate number of shares of Series A Preferred Stock so surrendered. Instead of any fractional share of Common Stock which would otherwise be issuable upon conversion of any shares of Series A Preferred Stock, the Corporation shall pay a cash adjustment in respect of such fractional interest in an amount equal to the same fraction of the Market Price as of the close of business on the day of conversion.

(g) Reservation of Shares; Transfer Taxes; Etc. The Corporation shall at all times reserve and keep available, out of its authorized and unissued shares of Common Stock, solely for the purpose of effecting the conversion of the Series A Preferred Stock, including shares of Series A Preferred Stock issued as payment of dividends pursuant to Section 2 hereof, such number of shares of its Common Stock free of preemptive rights as shall be sufficient to effect the conversion of all shares of Series A Preferred Stock from time to time outstanding. The Corporation shall use its best efforts from time to time, in accordance with the laws of the State of Delaware, to increase the authorized number of shares of Common Stock if at any time the number of shares of authorized, unissued and unreserved Common Stock shall not be sufficient to permit the conversion of all the then-outstanding shares of Series A Preferred Stock.

(h) Prior Notice of Certain Events. In case:

(i) the Corporation shall declare any dividend (or any other distribution); or

(ii) the Corporation shall authorize the granting to the holders of Common Stock of rights or warrants to subscribe for or purchase any shares of stock of any class or of any other rights or warrants; or

(iii) of any reclassification of Common Stock (other than a subdivision or combination of the outstanding Common Stock, or a change in par value, or from par value to no par value, or from no par value to par value); or

(iv) of any consolidation or merger to which the Corporation is a party and for which approval of any stockholders of the Corporation shall be required, or of the sale or transfer of all or substantially all of the assets of the Corporation or of any compulsory share exchange whereby the Common Stock is converted into other securities, cash or other property; or

(v) of the voluntary or involuntary dissolution, liquidation or winding up of the Corporation (including, without limitation, a Liquidation Event);

then the Corporation shall cause to be filed with the Transfer Agent for the Series A Preferred Stock, and shall cause to be mailed to the holders of record of the Series A Preferred Stock, at their last addresses as they shall appear upon the stock transfer books of the Corporation, at least 20 days prior to the applicable record date hereinafter specified, a notice stating (x) the date on which a record (if any) is to be taken for the purpose of such dividend, distribution or granting of rights or warrants or, if a record is not to be taken, the date as of which the holders of Common Stock of record to be entitled to such dividend, distribution, rights or warrants are to be determined and a description of the cash, securities or other property to be received by such holders upon such dividend, distribution or granting of rights or warrants or (y) the date on which such reclassification, consolidation, merger, sale, transfer, share exchange, dissolution, liquidation or winding up or other Liquidation Event is expected to become effective, the date as of which it is expected that holders of Common Stock of record shall be entitled to exchange their shares of Common Stock for securities or other property deliverable upon such exchange, dissolution, liquidation or winding up or other Liquidation Event and the consideration, including securities or other property, to be received by such holders upon such exchange; *provided, however*, that no failure to mail such notice or any defect therein or in the mailing thereof shall affect the validity of the corporate action required to be specified in such notice.



(i) Other Changes in Conversion Rate. (i) The Corporation from time to time may increase the Conversion Rate by any amount for any period of time if the period is at least 20 days and if the increase is irrevocable during the period. Whenever the Conversion Rate is so increased, the Corporation shall mail to holders of record of the Series A Preferred Stock a notice of the increase at least 15 days before the date the increased Conversion Rate takes effect, and such notice shall state the increased Conversion Rate and the period it will be in effect.

(ii) The Corporation may (but shall not be obligated to) make such increases in the Conversion Rate, in addition to those required or allowed by this Section 4, as shall be determined by it, as evidenced by a resolution of the Board of Directors, to be advisable in order to avoid or diminish any income tax to holders of Common Stock resulting from any dividend or distribution of stock or issuance of rights or warrants to purchase or subscribe for stock or from any event treated as such for income tax purposes.

(iii) Notwithstanding anything to the contrary herein, in no case shall the Conversion Price be adjusted to an amount less than \$0.001 per share, the current par value of the Common Stock into which the Series A Preferred Stock is convertible.

(j) Ambiguities/Errors. The Board of Directors of the Corporation shall have the power to resolve any ambiguity or correct any error in the provisions relating to the convertibility of the Series A Preferred Stock, and its actions in so doing shall be final and conclusive.

5. Voting Rights.

(a) General. Except as otherwise provided herein, in the Certificate of Incorporation or the Bylaws of the Corporation, the holders of shares of Series A Preferred Stock, the holders of shares of Common Stock and the holders of any other class or series of shares entitled to vote with the Common Stock shall vote together as one class on all matters submitted to a vote of stockholders of the Corporation. In any such vote, each share of Series A Preferred Stock shall entitle the holder thereof to cast the number of votes equal to the number of votes which could be cast in such vote by a holder of the Common Stock into which such share of Series A Preferred Stock is convertible on the record date for such vote, or if no record date has been established, on the date such vote is taken. Any shares of Series A Preferred Stock held by the Corporation or any entity controlled by the Corporation shall not have voting rights hereunder and shall not be counted in determining the presence of a quorum.

(b) Class Voting Rights. In addition to any vote specified in Section 5(a), so long as at least 50% of the Series A Preferred Stock shall be outstanding, the affirmative vote or consent of the holders of at least 66.6% of all outstanding Series A Preferred Stock voting separately as a class shall be necessary to permit, effect or validate any one or more of the following: (i) the amendment, alteration or repeal of any provision of the Certificate of Incorporation or the Bylaws of the Corporation so as adversely to affect the relative rights, preferences, qualifications, limitations or restrictions of the Series A Preferred Stock, (ii) the declaration or payment of any dividend or distribution on any securities of the Corporation other than the Series A Preferred Stock pursuant to and in accordance with the provisions of this Certificate of Designations, or the authorization of the repurchase of any securities of the Corporation, (iii) the authorization, issuance or increase of any security ranking prior to or on parity with the Series A Preferred Stock (A) upon a Liquidation Event or (B) with respect to the payment of any dividends or distributions, (iv) the approval of any liquidation, dissolution or sale of substantially all of the assets of the Corporation and (v) effect any amendment of the Corporation's certificate of incorporation or Bylaws that would materially adversely affect the rights of the Series A Preferred Stock. The vote as contemplated herein shall specifically not be required for (x) issuances of Common Stock, or (y) any consolidation or merger of the Corporation with or into another corporation whether or not the Corporation is the surviving entity, a sale or transfer of all or part of the Corporation's assets for cash, securities or other property, or a compulsory share exchange.

6. Redemption.

(a) Restriction on Redemption and Purchase. Except as expressly provided in this Section 6, the Corporation shall not have the right to purchase, call, redeem or otherwise acquire for value any or all of the Series A Preferred Stock.

(b) Optional Redemption. Provided that the shares of Common Stock underlying the Series A Preferred Stock are available for resale pursuant to an effective registration statement, at any time following the first anniversary of the issuance of the Series A Preferred Stock, the Corporation may, at its option, redeem the Series A Preferred Stock in whole, but not in part, at the Redemption Price hereinafter specified; *provided, however*, that the Corporation shall not redeem Series A Preferred Stock or give notice of any redemption pursuant to this Section 6 unless the Corporation has sufficient and lawful funds to redeem all of the then outstanding Series A Preferred Stock exclusive of shares of Series A Preferred Stock the Corporation has a reason to know will be converted to Common Stock; *provided, further*, that the Corporation shall not have the right to redeem shares of Common Stock issued upon conversion of the Series A Preferred Stock. The date on which the Series A Preferred Stock is to be redeemed pursuant to this Section 6(b) is herein called the "Redemption Date."

(c) Redemption Price. The Redemption Price of the Series A Preferred Stock (the "Redemption Price") shall be an amount per share equal to 110% of the Stated Value (subject to appropriate adjustment to reflect any stock split, combination, reclassification or reorganization of the Series A Preferred Stock) plus all accrued and unpaid dividends thereon calculated at the Stated Value, in the case of Series A Preferred Stock, up to and including the Redemption Date.

(d) Redemption Notice. The Corporation shall, not less than 30 days nor more than 60 days prior to the Redemption Date, give written notice ("Redemption Notice") to each holder of record of Series A Preferred Stock to be redeemed. The Redemption Notice shall state:

(i) that all of the outstanding shares of Series A Preferred Stock are to be redeemed and the total number of shares being redeemed;

(ii) the number of shares of Series A Preferred Stock held by the holder which the Corporation intends to redeem;

(iii) the Redemption Date and Redemption Price;

(iv) that the holder's right to convert the Series A Preferred Stock into shares of the Common Stock as provided in Section 9 hereof will terminate on the Redemption Date; and

(v) the time, place and manner in which the holder is to surrender to the Corporation the certificate or certificates representing the shares of Series A Preferred Stock to be redeemed.

(e) Payment of Redemption Price and Surrender of Stock. On the Redemption Date, the Redemption Price of the Series A Preferred Stock scheduled to be redeemed or called for redemption shall be payable to the holders of the Series A Preferred Stock. On or before the Redemption Date, each holder of Series A Preferred Stock to be redeemed, unless the holder has exercised his right to convert the shares as provided in Section 4 hereof, shall surrender the certificate or certificates representing such shares to the Corporation, in the manner and at the place designated in the Redemption Notice, and thereupon the Redemption Price for such shares shall be payable to the order of the person or entity whose name appears on such certificate or certificates as the owner thereof, and each surrendered certificate shall be canceled and retired.

(f) Termination of Rights. If the Redemption Notice is duly given, and, if at least five days prior to the Redemption Date, the Redemption Price is either paid or made available for payment through the arrangement specified in subsection (g) below, then notwithstanding that the certificates evidencing any of the shares of Series A Preferred Stock so called or scheduled for redemption have not been surrendered, all rights with respect to such shares shall forthwith after the Redemption Date cease and terminate, except only (i) the right of the holders to receive the Redemption Price without interest upon surrender of their certificates therefor or (ii) the right to receive shares of Common Stock upon exercise of the conversion rights provided in Section 4 hereof on or before the Redemption Date.

(g) Deposit of Funds. At least five days prior to the Redemption Date, the Corporation shall deposit with any bank or trust company in New York, New York, a sum equal to the aggregate Redemption Price of all shares of the Series A Preferred Stock scheduled to be redeemed or called for redemption and not yet redeemed, with irrevocable instructions and authority to the bank or trust company to pay the Redemption Price to the respective holders upon the surrender of their share certificates. The deposit shall constitute full payment for the shares of Series A Preferred Stock to the holders thereof, and from and after the date of such deposit (even if prior to the Redemption Date), the shares of Series A Preferred Stock shall be deemed to be redeemed and no longer outstanding, and the holders thereof shall cease to be shareholders with respect to such shares of Series A Preferred Stock and shall have no rights with respect thereto, except the right to receive from the bank or trust company payment of the Redemption Price of the shares of Series A Preferred Stock, without interest, upon surrender of their certificates therefor and the right to convert such shares of Series A Preferred Stock into shares of Common Stock as provided in Section 4 hereof. Any monies so deposited and unclaimed at the end of one year from the Redemption Date shall be released or repaid to the Corporation, after which time the holders of shares of Series A Preferred Stock called for redemption shall be entitled to receive payment of the Redemption Price only from the Corporation.

7. Outstanding Shares. For purposes of this Certificate of Designations, after initial issuance, all shares of Series A Preferred Stock shall be deemed outstanding except (i) from the date, or the deemed date, of surrender of certificates evidencing shares of Series A Preferred Stock, all shares of Series A Preferred Stock converted into Common Stock, (ii) from the date of registration of transfer, all shares of Series A Preferred Stock held of record by the Corporation or any subsidiary of the Corporation and (iii) any and all shares of Series A Preferred Stock held in escrow prior to delivery of such stock by the Corporation to the initial beneficial owners thereof.

8. Status of Acquired Shares. Shares of Series A Preferred Stock received upon conversion pursuant to Section 4 or redemption pursuant to Section 6 or otherwise acquired by the Corporation will be restored to the status of authorized but unissued shares of Preferred Stock, without designation as to class, and may thereafter be issued, but not as shares of Series A Preferred Stock.

9. Preemptive Rights. The Series A Preferred Stock is not entitled to any preemptive or subscription rights in respect of any securities of the Corporation.

10. No Amendment or Impairment. The Corporation shall not amend its Certificate of Incorporation or participate in any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action for the purpose of avoiding or seeking to avoid the observance or performance of any of the terms to be observed or performed hereunder by the Corporation, but will at all times in good faith assist in carrying out all such action as may be reasonably necessary or appropriate in order to protect the rights of the holders of the Series A Preferred Stock against impairment.

11. Severability of Provisions. Whenever possible, each provision hereof shall be interpreted in a manner as to be effective and valid under applicable law, but if any provision hereof is held to be prohibited by or invalid under applicable law, such provision shall be ineffective only to the extent of such prohibition or invalidity, without invalidating or otherwise adversely affecting the remaining provisions hereof. If a court of competent jurisdiction should determine that a provision hereof would be valid or enforceable if a period of time were extended or shortened or a particular percentage were increased or decreased, then such court may make such change as shall be necessary to render the provision in question effective and valid under applicable law.

IN WITNESS WHEREOF, Manhattan Pharmaceuticals, Inc. has caused this Certificate to be signed on its behalf, as of this 31st day of October, 2003.

MANHATTAN PHARMACEUTICALS, INC.

By: /s/ Leonard Firestone

Name: Leonard Firestone, M.D.

Title: President and Chief Executive Officer

STATE OF DELAWARE  
CERTIFICATE OF OWNERSHIP

SUBSIDIARY INTO PARENT  
(Section 253)

CERTIFICATE OF OWNERSHIP  
MERGING  
TARPAN THERAPEUTICS, INC.  
INTO  
MANHATTAN PHARMACEUTICALS, INC.

\* \* \* \* \*

(Pursuant to Section 253 of the General Corporation Law of Delaware)

**Manhattan Pharmaceuticals, Inc.**, a corporation incorporated on the 18th day of May, 1993 (the "Corporation"), pursuant to the provisions of the General Corporation Law of the State of Delaware;

**DOES HEREBY CERTIFY** that this Corporation owns 100% of the capital stock of Tarpan Therapeutics, Inc., a corporation incorporated on the 16<sup>th</sup> day of July, 2003, A.D., pursuant to the provisions of the General Corporation Law of the State of Delaware, by a resolution of its Board of Directors, duly adopted by the following resolutions, filed with the minutes of the Board on the 20th day of December, 2006, A.D., determined to and did merge into itself said Tarpan Therapeutics, Inc., which resolution is in the following words to wit:

WHEREAS, the Board desires to cause Tarpan Therapeutics, Inc. to merge with and into the Corporation (the "Merger"), with the Corporation remaining as the surviving corporation to the Merger; and

WHEREAS, following the Merger, the Corporation shall succeed to all of the estate, property, rights, privileges and franchises of Tarpan Therapeutics, Inc. and shall assume all of Tarpan Therapeutics, Inc.'s liabilities and obligations.

NOW, THEREFORE BE IT RESOLVED, that Tarpan Therapeutics, Inc. merge with and into the Corporation, with the Corporation remaining as the surviving corporation to the Merger;

RESOLVED FURTHER, that following the Merger, the Corporation succeed to all of the estate, property, rights, privileges and franchises of Tarpan Therapeutics, Inc. and assume all of Tarpan Therapeutics, Inc.'s liabilities and obligations;

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RESOLVED FURTHER, that the Corporation's officers are hereby authorized and directed to prepare or cause to be prepared all necessary documents, agreements, instruments and certificates to effectuate the Merger, including, without limitation, a Certificate of Ownership to be filed with the Secretary of State of Delaware (the "Certificate of Ownership"); and to execute and deliver such documents, agreements, instruments and certificates, and to make such filings as they deem necessary or advisable to effectuate the Merger, including, without limitation, filing a Certificate of Ownership with the Secretary of State of Delaware, and a certified copy thereof in the office of the Recorder of Deeds of New Castle County;

RESOLVED FURTHER, that the Merger shall be effective upon the date of filing of the Certificate of Ownership with the Secretary of State of Delaware; and

RESOLVED FURTHER, that the proper officer of this corporation be and he is hereby directed to make and execute a Certificate of Ownership and Merger setting forth a copy of the resolutions to merge into itself said Tarpan Therapeutics, Inc. and assume the liabilities and obligations of Tarpan Therapeutics, Inc., and the date of adoption thereof, and to cause the same to be filed with the Secretary of State and to do all acts and things whatsoever, whether within or without the State of Delaware, which may be in anywise necessary or proper to effect said Merger.

**IN WITNESS WHEREOF**, Manhattan Pharmaceuticals, Inc. has caused this Certificate to be signed by Michael G. McGuinness, its Chief Financial Officer this 28th day of December, 2006.

**MANHATTAN  
PHARMACEUTICALS, INC.**

By: /s/ Michael G. McGuinness

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Michael G. McGuinness  
Chief Executive Officer

**CERTIFICATE OF AMENDMENT  
TO  
THE RESTATED CERTIFICATE OF INCORPORATION  
OF  
MANHATTAN PHARMACEUTICALS, INC.**

The undersigned, for purposes of amending the Restated Certificate of Incorporation (the "*Certificate*") of Manhattan Pharmaceuticals, Inc., a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware, does hereby certify as follows:

**FIRST:** The name of the corporation is Manhattan Pharmaceuticals, Inc. (the "*Corporation*"). The original name of the Corporation was Atlantic Pharmaceutical, Inc. and the date of incorporation was May 18, 1993.

**SECOND:** The Restated Certificate of Incorporation was filed with the Office of the Secretary of State of the State of Delaware on July 29, 1993. An Amendment to the Restated Certificate of Incorporation was filed on September 22, 2003, with an effective date of September 25, 2003.

**THIRD:** That Article FOURTH, Section A. of the Restated Certificate of Incorporation is hereby deleted and replaced to read, in its entirety, as follows: "A. The corporation is authorized to issue two classes of stock designated "Common Stock" and "Preferred Stock," respectively. The total number of shares of Common Stock authorized to be issued is 500,000,000, and each such share will have a par value of \$0.001. The total number of shares of Preferred Stock authorized to be issued is 10,000,000, and each such share will have a par value of \$0.001."

**FOURTH:** That the foregoing amendments were duly adopted by the Board of Directors and by the stockholders of the Corporation in accordance with the applicable provisions of Section 242 of the General Corporation Law of the State of Delaware.

**IN WITNESS WHEREOF**, the undersigned, being a duly authorized officer of the Corporation, does hereby execute this Certificate of Amendment to the Restated Certificate of Incorporation this 30th day of November, 2009.

By: /s/ Michael G. McGuinness  
Name: Michael G. McGuinness  
Title: CFO and COO

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RESTATED

BY LAWS

of

ATLANTIC PHARMACEUTICALS, INC.

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RESTATED

BYLAWS

of

ATLANTIC PHARMACEUTICALS, INC.  
a Delaware Corporation

ARTICLE I

OFFICES

Section 1.01 REGISTERED OFFICE. The registered office of ATLANTIC PHARMACEUTICALS, INC. (hereinafter called the "Corporation") shall be at such place in the State of Delaware as shall be designated by the Board of Directors (hereinafter called the "Board").

Section 1.02 PRINCIPAL OFFICE. The principal office for the transaction of the business of the Corporation shall be at such location, within or without the State of Delaware, as shall be designated by the Board.

Section 1.03 OTHER OFFICES. The Corporation may also have an office or offices at such other place or places, either within or without the State of Delaware, as the Board may from time to time determine or as the business of the Corporation may require.

ARTICLE II

MEETINGS OF STOCKHOLDERS

Section 2.01 ANNUAL MEETINGS. Annual meetings of the stockholders of the Corporation for the purpose of electing directors and for the transaction of such other proper business as may come before such meetings may be held at such time, date and place as the Board shall determine by resolution.

Section 2.02 SPECIAL MEETINGS. Special meetings of the stockholders of the Corporation for any purpose or purposes may be called at any time by the Board, or by a committee of the Board which, or officer of the corporation who, has been duly designated by the Board and whose powers and authority, as provided in a resolution of the Board or in the Bylaws, include the power to call such meetings, but such special meetings may not be called by any other person or persons; provided, however, that if and to the extent that any special meeting of stockholders may be called by any other person or persons specified in any provisions of the Certificate of Incorporation or any amendment thereto or any certificate filed under Section 151(g) of the General Corporation Law of the State of Delaware (or its successor statute as in effect from time to time hereafter), then such special meeting may also be called by the person or persons, in the manner, at the time and for the purposes so specified.

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Section 2.03 PLACE OF MEETINGS. All meetings of the stockholders shall be held at such places, within or without the State of Delaware, as may from time to time be designated by the person or persons calling the respective meetings and specified in the respective notices or waivers of notice thereof.

Section 2.04 NOTICE OF MEETINGS. Except as otherwise required by law, notice of each meeting of the stockholders, whether annual or special, shall be given not less than ten (10) nor more than sixty (60) days before the date of the meeting to each stockholder of record entitled to vote at such meeting by delivering a typewritten or printed notice thereof to him personally, or by depositing such notice in the United States mail or overnight delivery service, in a postage prepaid envelope, or by-hand delivery service, charges prepaid, directed to him at his address furnished by him to the Secretary of the Corporation for such purpose or, if he shall not have furnished to the Secretary his address for such purpose, then at his address last known to the Secretary, or by transmitting a notice thereof to him at such address by telegraph, telecopy, cable or wireless. Except as otherwise expressly required by law, no publication of any notice of a meeting of the stockholders shall be required. Every notice of a meeting of the stockholders shall state the place, date and hour of the meeting, and, in the case of a special meeting shall also state the purpose or purposes for which the meeting is called. Except as otherwise expressly required by law, notice of any adjourned meeting of the stockholders need not be given if the time and place thereof are announced at the meeting at which the adjournment is taken.

Whenever notice is required to be given to any stockholder to whom (i) notice of two consecutive annual meetings, and all notices of meetings or of the taking of action by written consent without a meeting to such person during the period between such two consecutive annual meetings, or (ii) all, and at least two, payments (if sent by first class mail) of dividends or interest on securities during a twelve month period, have been mailed addressed to such person at his address as shown on the records of the Corporation and have been returned undeliverable, the giving of such notice to such person shall not be required. Any action or meeting which shall have been taken or held without notice to such person shall have the same force and effect as if such notice had been duly given. If any such person shall deliver to the Corporation a written notice setting forth his then current address, the requirement that notice be given to such person shall be reinstated.

No notice need be given to any person with whom communication is unlawful, nor shall there be any duty to apply for any permit or license to give notice to any such person.

Section 2.05 QUORUM. Except as provided by law, the holders of record of a majority in voting interest of the shares of stock of the Corporation entitled to be voted, present in person or by proxy, shall constitute a quorum for the transaction of business at any meeting of the stockholders of the Corporation or any adjournment thereof. The stockholders present at a duly called or held meeting at which a quorum is present may continue to do business until adjournment, notwithstanding the withdrawal of enough stockholders to leave less than a quorum. In the absence of a quorum at any meeting or any adjournment thereof, a majority in voting interest of the stockholders present in person or by proxy and entitled to vote thereat or, in the absence thereof of all the stockholders, any officer entitled to preside at or to act as secretary of such meeting may adjourn such meeting from time to time. At any such adjourned meeting at which a quorum is present any business may be transacted which might have been transacted at the meeting as originally called.

Section 2.06 VOTING.

(a) At each meeting of the stockholders, each stockholder shall be entitled to vote in person or by proxy each share or fractional share of the stock of the Corporation which has voting rights on the matter in question and which shall have been held by him and registered in his name on the books of the Corporation:

(i) on the date fixed pursuant to Section 2.07 of these Bylaws as the record date for the determination of stockholders entitled to notice of and to vote at such meeting, or

(ii) if no such record date shall have been so fixed, then (A) at the close of business on the day next preceding the day on which notice of the meeting shall be given or (B) if notice of the meeting shall be waived, at the close of business on the day next preceding the day on which the meeting shall be held.

(b) Shares of its own stock belonging to the Corporation or to another corporation, if a majority of the shares entitled to vote in the election of directors in such other corporation is held, directly or indirectly, by the Corporation, shall neither be entitled to vote nor be counted for quorum purposes. Persons holding stock of the Corporation in a fiduciary capacity shall be entitled to vote such stock. Persons whose stock is pledged shall be entitled to vote, unless in the transfer by the pledgor on the books of the Corporation he shall have expressly empowered the pledgee to vote thereon, in which case only the pledgee, or his proxy, may represent such stock and vote thereon. Stock having voting power standing of record in the names of two or more persons, whether fiduciaries, members of a partnership, joint tenants, tenants in common, tenants by the entirety or otherwise, or with respect to which two or more persons have the same fiduciary relationship, shall be voted in accordance with the provisions of the General Corporation Law of Delaware.

(c) Any such voting rights may be exercised by the stockholder entitled thereto in person or by his proxy appointed by an instrument in writing, subscribed by such stockholder or by his attorney thereunto authorized and delivered to the secretary of the meeting; provided, however, that no proxy shall be voted or acted upon after three years from its date unless said proxy shall provide for a longer period. The attendance at any meeting of a stockholder who may theretofore have given a proxy shall not have the effect of revoking the same unless he shall in writing so notify the secretary of the meeting prior to the voting of the proxy. At any meeting of the stockholders all matters, except as otherwise provided in the Certificate of Incorporation, in these Bylaws or by law, shall be decided by the vote of a majority in voting interest of the stockholders present in person or by proxy and entitled to vote thereat and thereon. The stockholders present at a duly called or held meeting at which a quorum is present may continue to do business until adjournment, notwithstanding the withdrawal of enough stockholders to leave less than a quorum. The vote at any meeting of the stockholders on any question need not be by ballot, unless so directed by the chairman of the meeting. On a vote by ballot, each ballot shall be signed by the stockholder voting, or by his proxy if there be such proxy, and it shall state the number of shares voted.

Section 2.07 LIST OF STOCKHOLDERS. The Secretary of the Corporation shall prepare and make, at least ten (10) days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting, arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, during ordinary business hours, for a period of at least ten (10) days prior to the meeting, either at a place within the city where the meeting is to be held, which place shall be specified in the notice of the meeting, or, if not so specified, at the place where the meeting is to be held. The list shall also be produced and kept at the time and place of the meeting during the entire duration thereof, and may be inspected by any stockholder who is present.

Section 2.08 STOCK LEDGER. The stock ledger of the Corporation shall be the only evidence as to who are the stockholders entitled to examine the stock ledger, the list required by Section 2.07 of this Article II or the books of the Corporation, or to vote in person or by proxy at any meeting of stockholders.

Section 2.09 INSPECTOR OF ELECTION. The directors, in advance of any meeting, may, but need not, appoint one or more inspectors of election to act at the meeting or any adjournment thereof. If an inspector or inspectors are not appointed, the person presiding at the meeting may, but need not, appoint one or more inspectors. In case any person who may be appointed as an inspector fails to appear or act, the vacancy may be filled by appointment made by the directors in advance of the meeting or at the meeting by the person presiding thereat. Each inspector so appointed shall first subscribe an oath faithfully to execute the duties of an inspector at such meeting with strict impartiality and according to the best of his ability. Such inspectors shall decide upon the qualification of the voters and shall report the number of shares represented at the meeting and entitled to vote on such question, shall conduct and accept the votes, and, when the voting is completed, shall ascertain and report the number of shares voted respectively for and against the question. Reports of the inspectors shall be in writing and subscribed and delivered by them to the Secretary of the Corporation. Inspectors need not be stockholders of the Corporation, and any officer of the Corporation may be an inspector on any question other than a vote for or against a proposal in which he shall have a material interest. No director or candidate for the office of director shall act as an inspector of an election of directors.

Section 2.10 STOCKHOLDER ACTION WITHOUT MEETINGS. Any action required by the General Corporation Law of the State of Delaware to be taken at any annual or special meeting of the stockholders, or any action which may be taken at any annual or special meeting of the stockholders, may be taken without a meeting, without prior notice and without a vote, if a consent in writing setting forth the action so taken shall be signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote thereon were present and voted. Prompt notice of the taking of the corporate action without a meeting by less than unanimous written consent shall be given to those stockholders who have not consented in writing.

Section 2.11 RECORD DATE. In order that the Corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, or to express consent to corporate action in writing without a meeting, or entitled to receive payment of any dividend or other distribution or allotment of any rights, or entitled to exercise any rights in respect of any change, conversion or exchange of stock or for the purpose of any other lawful action, the Board may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board and which record date: (i) in the case of determination of stockholders entitled to vote at any meeting of stockholders or adjournment thereof, shall, unless otherwise required by law, not be more than sixty nor less than ten days before the date of such meeting; (ii) in the case of determination of stockholders entitled to express consent to corporate action in writing without a meeting, shall not be more than ten days from the date upon which the resolution fixing the record date is adopted by the Board; and (iii) in the case of any other action, shall not be more than sixty days prior to such other action. If no record date is fixed: (i) the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or, if notice is waived, at the close of business on the day next preceding the day on which the meeting is held; (ii) the record date for determining stockholders entitled to express consent to corporate action in writing without a meeting when no prior action of the Board is required by law, shall be the first date on which a signed written consent setting forth the action taken or proposed to be taken is delivered to the corporation in accordance with applicable law, or, if prior action by the Board is required by law, shall be at the close of business on the day on which the Board adopts the resolution taking such prior action; and (iii) the record date for determining stockholders for any other purpose shall be at the close of business on the day on which the Board of Directors adopts the resolution relating thereto. A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; provided, however, that the Board may fix a new record date for the adjourned meeting.

### ARTICLE III

#### BOARD OF DIRECTORS

Section 3.01 GENERAL POWERS. The property, business and affairs of the Corporation shall be managed by or under the direction of the Board, which may exercise all of the powers of the Corporation, except such as are by the Certificate of Incorporation, by these Bylaws or by law conferred upon or reserved to the stockholders.

Section 3.02 NUMBER AND TERM. The Board shall consist of one or more members, the number of which shall be one until changed thereafter from time to time by resolution of the Board. Directors need not be stockholders of the Corporation. Each director shall hold office until a successor is elected and qualified or until the director resigns or is removed.

Section 3.03 ELECTION OF DIRECTORS. The directors shall be elected by the stockholders of the Corporation, and at each election the persons receiving the greatest number of votes, up to the number of directors then to be elected, shall be the persons then elected. The election of directors is subject to any provisions contained in the Certificate of Incorporation relating thereto, including any provisions for a classified board.

Section 3.04 RESIGNATION AND REMOVAL. Any director of the Corporation may resign at any time by giving written notice to the Board or to the Secretary of the Corporation. Any such resignation shall take effect at the time specified therein, or, if the time is not specified, it shall take effect immediately upon its receipt; and, unless otherwise specified therein, the acceptance of such resignation shall not be necessary to make it effective.

Except as otherwise provided by the Certificate of Incorporation or by law, any director or the entire board of directors may be removed, with or without cause, by the holders of a majority of shares then entitled to vote at an election of directors.

Section 3.05 VACANCIES. Except as otherwise provided in the Certificate of Incorporation, any vacancy in the Board, whether because of death, resignation, disqualification, an increase in the number of directors, or any other cause, may be filled by vote of the majority of the remaining directors, although less than a quorum, or by a sole remaining director. Each director so chosen to fill a vacancy shall hold office until his successor shall have been elected and shall qualify or until he shall resign or shall have been removed. No reduction of the authorized number of directors shall have the effect of removing any director prior to the expiration of his term of office.

Upon the resignation of one or more directors from the Board, effective at a future date, a majority of the directors then in office, including those who have so resigned, shall have the power to fill such vacancy or vacancies, the vote thereon to take effect when such resignation or resignations shall become effective, and each director so chosen shall hold office as provided hereinabove in the filling of other vacancies.

Section 3.06 PLACE OF MEETING; TELEPHONE CONFERENCE MEETING. The Board may hold any of its meetings at such place or places within or without the State of Delaware as the Board may from time to time by resolution designate or as shall be designated by the person or persons calling the meeting or in the notice or waiver of notice of any such meeting. Directors may participate in any regular or special meeting of the Board by means of conference telephone or similar communications equipment pursuant to which all persons participating in the meeting of the Board can hear each other, and such participation shall constitute presence in person at such meeting.

Section 3.07 FIRST MEETING. The Board shall meet as soon as practicable after each annual election of directors and notice of such first meeting shall not be required.

Section 3.08 REGULAR MEETINGS. Regular meetings of the Board may be held at such times as the Board shall from time to time by resolution determine. If any day fixed for a meeting shall be a legal holiday at the place where the meeting is to be held, then the meeting shall be held at the same hour and place on the next succeeding business day which is not a legal holiday. Except as provided by law, notice of regular meetings need not be given.

Section 3.09 SPECIAL MEETINGS. Special meetings of the Board may be called at any time by the Chairman of the Board or the President or by any two (2) directors, to be held at the principal office of the Corporation, or at such other place or places, within or without the State of Delaware, as the person or persons calling the meeting may designate.

Notice of the time and place of special meetings shall be given to each director either (i) by depositing such notice in the United States mail or overnight delivery service, in a postage prepaid envelope, or by-hand delivery service, charges prepaid, addressed to him at his address as it is shown upon the records of the Corporation, or if it is not so shown on such records or is not readily ascertainable, at the place in which the meetings of the directors are regularly held, or by transmitting a notice thereof to him at such address by telegraph, telecopy, cable or wireless, at least seventy-two (72) hours prior to the time of the holding of such meeting; or (ii) by orally communicating the time and place of the special meeting to him at least forty-eight (48) hours prior to the time of the holding of such meeting. Either of the notices as above provided shall be due, legal and personal notice to such director.

Section 3.10 QUORUM AND ACTION. Except as otherwise provided in these Bylaws or by law, the presence of a majority of the authorized number of directors shall be required to constitute a quorum for the transaction of business at any meeting of the Board, and all matters shall be decided at any such meeting, a quorum being present, by the affirmative votes of a majority of the directors present, subject to Section 3.15. In the absence of a quorum, a majority of directors present at any meeting may adjourn the same from time to time until a quorum shall be present. Notice of any adjourned meeting need not be given. The directors shall act only as a Board, and the individual directors shall have no power as such.

Section 3.11 ACTION BY CONSENT. Any action required or permitted to be taken at any meeting of the Board or of any committee thereof may be taken without a meeting if a written consent thereto is signed by all members of the Board or of such committee, as the case may be, and such written consent is filed with the minutes of proceedings of the Board or such committee. Such action by written consent shall have the same force and effect as the unanimous vote of such directors.

Section 3.12 COMPENSATION. No stated salary need be paid to directors, as such, for their services but, as fixed from time to time by resolution of the Board, the directors may receive directors' fees, compensation and reimbursement for expenses for attendance at directors' meetings, for serving on committees and for discharging their duties; provided that nothing herein contained shall be construed to preclude any director from serving the Corporation in any other capacity and receiving compensation therefor.

Section 3.13 COMMITTEES. The Board may, by resolution passed by a majority of the whole Board, designate one or more committees, each committee to consist of one or more of the directors of the Corporation. The Board may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of the committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not he or they constitute a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in place of any such absent or disqualified member. Any such committee, to the extent permitted by law and provided in the resolution of the Board, shall have and may exercise all the powers and authority of the Board in the management of the business and affairs of the Corporation, and may authorize the seal of the Corporation to be affixed to all papers which may require it.



Unless the Board otherwise provides, each committee designated by the Board may make, alter and repeal rules for conduct of its business. In the absence of such rules each committee shall conduct its business in the same manner as the Board conducts its business pursuant to these Bylaws. Any such committee shall keep written minutes of its meetings and report the same to the Board when required.

Section 3.14 OFFICERS OF THE BOARD. A Chairman of the Board or a Vice Chairman may be appointed from time to time by the Board and shall have such powers and duties as shall be designated by the Board.

Section 3.15 INTERESTED DIRECTORS. No contract or transaction between the Corporation and one or more of its directors or officers, or between the Corporation and any other corporation, partnership, association, or other organization in which one or more of its directors or officers are directors or officers; or have a financial interest, shall be void or voidable solely for this reason, or solely because the director or officer is present at or participates in the meeting of the Board of Directors or committee thereof which authorizes the contract or transaction, or solely because his or their votes are counted for such purpose if (i) the material facts as to his or their relationship or interest and as to the contract or transaction are disclosed or are known to the Board of Directors or the committee, and the Board of Directors or committee in good faith authorizes the contract or transaction by the affirmative votes of a majority of the disinterested directors, even though the disinterested directors be less than a quorum; or (ii) the material facts as to his or their relationship or interest and as to the contract or transaction are disclosed or are known to the stockholders entitled to vote thereon, and the contract or transaction is specifically approved in good faith by vote of the disinterested stockholders; or (iii) the contract or transaction is fair as to the Corporation as of the time it is authorized, approved or ratified, by the Board of Directors, a committee thereof or the stockholders. Common or interested directors may be counted in determining the presence of a quorum at a meeting of the Board of Directors or of a committee which authorizes the contract or transaction.

Section 3.16 LIMITED DIRECTOR LIABILITY. A director of the corporation shall not be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, except for liability (i) for any breach of the director's duty of loyalty to the Corporation or its stockholders, (ii) for acts or omissions not in good faith or which involved intentional misconduct or a knowing violation of law, (iii) under Section 174 of the DGCL for unlawful payment of dividends or improper redemption of stock, or (iv) for any transaction from which the director derived an improper benefit. If the DGCL is hereafter amended to authorize the further elimination or limitation of the liability of directors, thus the liability of a director of the Corporation, in addition to the limitation on personal liability provided herein, shall be limited to the fullest extent permitted by the DGCL, as amended. Any repeal or modification of this paragraph by the stockholders of the Corporation shall be prospective only, and shall not adversely affect any limitation on the personal liability of a director of the Corporation existing at the time of such repeal or modification.

## ARTICLE IV

### OFFICERS

Section 4.01 OFFICERS. The officers of the Corporation shall be a President, a Secretary and a Treasurer. The Corporation may also have, at the discretion of the Board, a Chairman of the Board, a Chief Executive Officer, one or more Vice Presidents, one or more Assistant Vice Presidents, one or more Assistant Secretaries, one or more Assistant Treasurers and such other officers as may be appointed in accordance with the provisions of Section 4.03 of these Bylaws. One person may hold two or more offices, except that the Secretary may not also hold the office of President.

Section 4.02 ELECTION AND TERM. The officers of the Corporation, except such officers as may be appointed in accordance with the provisions of Section 4.03 or Section 4.05 of these Bylaws, shall be chosen annually by the Board, and each shall hold his office until he shall resign or shall be removed or otherwise disqualified to serve, or until his successor shall be elected and qualified.

Section 4.03 SUBORDINATE OFFICERS. The Board may appoint, or may authorize the Chief Executive Officer to appoint, such other officers as the business of the Corporation may require, each of whom shall have such authority and perform such duties as are provided in these Bylaws or as the Board or the President from time to time may specify, and shall hold office until he shall resign or shall be removed or otherwise disqualified to serve.

Section 4.04 REMOVAL AND RESIGNATION. Any officer may be removed, with or without cause, by a majority of the directors at the time in office, at any regular or special meeting of the Board, or, except in case of an officer chosen by the Board, by the Chief Executive Officer upon whom such power of removal may be conferred by the Board.

Any officer may resign at any time by giving written notice to the Board, the Chairman of the Board, the President or the Secretary of the Corporation. Any such resignation shall take effect at the date of the receipt of such notice or at any later time specified therein; and unless otherwise specified therein, the acceptance of such resignation shall not be necessary to make it effective.

Section 4.05 VACANCIES. A vacancy in any office because of death, resignation, removal, disqualification or any other cause shall be filled in the manner prescribed in the Bylaws for the regular appointments to such office.

Section 4.06 PRESIDENT. The President of the Corporation shall, subject to the control of the Board, have general supervision, direction and control of the business and affairs of the Corporation. He shall preside at all meetings of stockholders and the Board. He shall have the general powers and duties of management usually vested in the chief executive officer of a corporation, and shall have such other powers and duties with respect to the administration of the business and affairs of the Corporation as may from time to time be assigned to him by the Board or as prescribed by the Bylaws.

Section 4.07 CHAIRMAN OF THE BOARD. The Chairman of the Board, if any, shall preside at all meetings of the stockholders and the Board and exercise and perform such other powers and duties with respect to the administration of the business and affairs of the Corporation as may from time to time be assigned to him by the Board or as is prescribed by the Bylaws.

Section 4.08 CHIEF EXECUTIVE OFFICER/CHIEF OPERATING OFFICER/OFFICE OF THE CHIEF EXECUTIVE. In the event the Board of Directors elects a Chief Executive Officer and/or a Chief Operating Officer, or establishes an Office of the Chief Executive, the person or persons so elected or the members of such office shall individually or jointly, as the case may be, have general and active management of the property, business and affairs of the Corporation, subject to the supervision and control of the Board. The Chief Executive Officer, the Chief Operating Officer, or members of the Office of the Chief Executive, as the case may be, also shall have such powers and perform such other duties as prescribed from time to time by the Board of Directors.

Section 4.09 VICE PRESIDENT. The Vice President(s), if any, shall exercise and perform such powers and duties with respect to the administration of the business and affairs of the Corporation as from time to time may be assigned to each of them by the President, by the Chairman of the Board, if any, by the Board or as is prescribed by the Bylaws. In the absence or disability of the President, the Vice Presidents, in order of their rank as fixed by the Board, or if not ranked, the Vice President designated by the Board, shall perform all of the duties of the President and when so acting shall have all of the powers of and be subject to all the restrictions upon the President.

Section 4.10 SECRETARY. The Secretary shall keep, or cause to be kept, a book of minutes at the principal office for the transaction of the business of the Corporation, or such other place as the Board may order, of all meetings of directors and stockholders, with the time and place of holding, whether regular or special, and if special, how authorized and the notice thereof given, the names of those present at directors' meetings, the number of shares present or represented at stockholders' meetings and the proceedings thereof.

The Secretary shall keep, or cause to be kept, at the principal office for the transaction of the business of the Corporation or at the office of the Corporation's transfer agent, a share register, or a duplicate share register, showing the names of the stockholders and their addresses, the number and classes of shares held by each, the number and date of certificates issued for the same, and the number and date of cancellation of every certificate surrendered for cancellation.

The Secretary shall give, or cause to be given, notice of all the meetings of the stockholders and of the Board required by these Bylaws or by law to be given, and he shall keep the seal of the Corporation in safe custody, and shall have such other powers and perform such other duties as may be prescribed by the Board or these Bylaws. If for any reason the Secretary shall fail to give notice of any special meeting of the Board called by one or more of the persons identified in Section 3.09 of these Bylaws, or if he shall fail to give notice of any special meeting of the stockholders called by one or more of the persons identified in Section 2.02 of these Bylaws, then any such person or persons may give notice of any such special meeting.

Section 4.11      **TREASURER.** The Treasurer shall keep and maintain or cause to be kept and maintained, adequate and correct accounts of the properties and business transactions of the Corporation, including accounts of its assets, liabilities, receipts, disbursements, gains, losses, capital, surplus and shares. Any surplus, including earned surplus, paid-in surplus and surplus arising from a reduction of capital, shall be classified according to source and shown in a separate account. The books of account at all reasonable times shall be open to inspection by any director.

The Treasurer shall deposit all moneys and other valuables in the name and to the credit of the Corporation with such depositories as may be designated by the Board. He shall disburse the funds of the Corporation as may be ordered by the Board, shall render to the President, to the Chief Executive Officer and to the directors, whenever they request it, an account of all of his transactions as Treasurer and of the financial condition of the Corporation, and shall have such other powers and perform such other duties as may be prescribed by the Board or these Bylaws.

Section 4.12      **ASSISTANT SECRETARIES.** Except as may be otherwise provided in these By-Laws, Assistant Secretaries, if there be any, shall perform such duties and have such powers as from time to time may be assigned to them by the Board of Directors, the President, any Vice President, if there be one, or the Secretary, and in the absence of the Secretary or in the event of his disability or refusal to act, shall perform the duties of the Secretary, and when so acting, shall have all the powers of and be subject to all the restrictions upon the Secretary.

Section 4.13      **ASSISTANT TREASURERS.** Assistant Treasurers, if there be any, shall perform such duties and have such powers as from time to time may be assigned to them by the Board of Directors, the President, any Vice President, if there be one, or the Treasurer, and in the absence of the Treasurer or in the event of his disability or refusal to act, shall perform the duties of the Treasurer, and when so acting, shall have all the powers of and be subject to all the restrictions upon the Treasurer. If required by the Board of Directors, an Assistant Treasurer shall give the Corporation a bond in such sum and with such surety or sureties as shall be satisfactory to the Board of Directors for the faithful performance of the duties of his office and for the restoration to the Corporation, in case of his death, resignation, retirement or removal from office, of all books, papers, vouchers, money and other property of whatever kind in his possession or under his control belonging to the Corporation.

Section 4.14      **OTHER OFFICERS.** Such other officers as the Board of Directors may choose shall perform such duties and have such powers as from time to time may be assigned to them by the Board of Directors. The Board of Directors may delegate to any other officer of the Corporation the power to choose such other officers and to prescribe their respective duties and powers.

Section 4.15      **COMPENSATION.** The compensation of the officers of the Corporation, if any, shall be fixed from time to time by the Board.

Section 4.16 VOTING SECURITIES OWNED BY THE CORPORATION. Powers of attorney, proxies, waivers of notice of meeting, consents and other instruments relating to securities owned by the Corporation may be executed in the name of and on behalf of the Corporation by the President or any Vice President and any such officer may, in the name of and on behalf of the Corporation, take all such action as any such officer may deem advisable to vote in person or by proxy at any meeting of security holders of any corporation in which the Corporation may own securities and at any such meeting shall possess and may exercise any and all rights and power incident to the ownership of such securities and which, as the owner thereof, the Corporation might have exercised and possessed if present. The Board of Directors may, by resolution, from time to time confer like powers upon any other person or persons.

## ARTICLE V

### CONTRACTS, CHECKS, DRAFTS, BANK ACCOUNTS, ETC.

Section 5.01 EXECUTION OF CONTRACTS. The Board, except as otherwise provided in these Bylaws, may authorize any officer or officers, agent or agents, to enter into any contract or execute any instrument in the name and on behalf of the Corporation, and such authority may be general or confined to specific instances; and unless so authorized by the Board or by these Bylaws, no officer, agent or employee shall have any power or authority to bind the Corporation by any contract or engagement or to pledge its credit or to render it liable for any purpose or in any amount.

Section 5.02 CHECKS, DRAFTS, ETC. All checks, drafts or other orders for payment of money, notes or other evidence of indebtedness, issued in the name of or payable to the Corporation, shall be signed or endorsed by such person or persons and in such manner as, from time to time, shall be determined by resolution of the Board. Each such person shall give such bond, if any, as the Board may require.

Section 5.03 DEPOSIT. All funds of the Corporation not otherwise employed shall be deposited from time to time to the credit of the Corporation in such banks, trust companies or other depositories as the Board may select, or as may be selected by any officer or officers, assistant or assistants, agent or agents, attorney or attorneys, of the Corporation to whom such power shall have been delegated by the Board. For the purpose of deposit and for the purpose of collection for the account of the Corporation, the President, the Chief Executive Officer, any Vice President or the Treasurer (or any other officer or officers, assistant or assistants, agent or agents, or attorney or attorneys of the Corporation who shall be determined by the Board from time to time) may endorse, assign and deliver checks, drafts and other orders for the payment of money which are payable to the order of the Corporation.

Section 5.04 GENERAL AND SPECIAL BANK ACCOUNTS. The Board from time to time may authorize the opening and keeping of general and special bank accounts with such banks, trust companies or other depositories as the Board may select or as may be selected by an officer or officers, assistant or assistants, agent or agents, or attorney or attorneys of the Corporation to whom such power shall have been delegated by the Board. The Board may make such special rules and regulations with respect to such bank accounts, not inconsistent with the provisions of these Bylaws, as it may deem expedient.

Section 5.05 AUDITS, ACCOUNTS AND REPORTS. The books of account of the Company shall be audited at least once during each year by a firm of independent certified accountants. The initial independent auditor of the Company shall be Ernst & Young.

Section 5.06 ACCESS. All books and records of the Company shall be kept at the principal place of business of the Company. Each shareholder may at its own expense, after giving written notice to the Company, audit, investigate and familiarize itself with the operations of the Company using its own employees or such certified public accounting firm, qualified external auditor or other advisers as it may select. The shareholders' rights under this Section, which shall include the right to make copies of any relevant documents, shall be exercised such that the actions of the shareholders or their respective agents do not interfere unreasonably with the operation of the Company in its ordinary course of business.

Section 5.07 FISCAL YEAR. The fiscal year of the Company shall end on the last day of each calendar year.

Section 5.08 ACCOUNTING POLICY. The Company shall maintain accounting records, accounts and related financial statements in accordance with United States generally accepted accounting principles applied on a consistent basis.

Section 5.09 DIVIDENDS. Dividends upon the capital stock of the Corporation, subject to the provisions of the Certificate of Incorporation, if any, may be declared by the Board of Directors at any regular or special meeting, and may be paid in cash, in property, or in shares of the capital stock. Before payment of any dividend, there may be set aside out of any funds of the Corporation available for dividends such sum or sums as the Board of Directors from time to time, in its absolute discretion, deems proper as a reserve or reserves to meet contingencies, or for equalizing dividends, or for repairing or maintaining any property of the Corporation, or for any proper purpose, and the Board of Directors may modify or abolish any such reserve.

## ARTICLE VI

### SHARES AND THEIR TRANSFER

Section 6.01 CERTIFICATES FOR STOCK. Every owner of stock of the Corporation shall be entitled to have a certificate or certificates, in such form as the Board shall prescribe, certifying the number and class of shares of the stock of the Corporation owned by him. The certificates representing shares of such stock shall be numbered in the order in which they shall be issued and shall be signed in the name of the Corporation by the Chairman of the Board, the President or a Vice President and by the Secretary or an Assistant Secretary or by the Treasurer or an Assistant Treasurer. Any or all of the signatures on the certificates may be a facsimile. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon any such certificate shall thereafter have ceased to be such officer, transfer agent or registrar before such certificate is issued, such certificate may nevertheless be issued by the Corporation with the same effect as though the person who signed such certificate, or whose facsimile signature shall have been placed thereupon, were such officer, transfer agent or registrar at the date of issue. A record shall be kept of the respective names of the persons, firms or corporations owning the stock represented by such certificates, the number and class of shares represented by such certificates, respectively, and the respective dates thereof, and in case of cancellation, the respective dates of cancellation. Every certificate surrendered to the Corporation for exchange or transfer shall be cancelled, and no new certificate or certificates shall be issued in exchange for any existing certificate until such existing certificate shall have been so cancelled, except in cases provided for in Section 6.04 of these Bylaws.

Section 6.02      **TRANSFER OF STOCK.** Transfer of shares of stock of the Corporation shall be made only on the books of the Corporation by the registered holder thereof, or by his attorney thereunto authorized by power of attorney duly executed and filed with the Secretary, or with a transfer clerk or a transfer agent appointed as provided in Section 6.03 of these Bylaws, and upon surrender of the certificate or certificates for such shares properly endorsed and the payment of all taxes thereon. The person in whose name shares of stock stand on the books of the Corporation shall be deemed the owner thereof for all purposes as regards the Corporation. Whenever any transfer of shares shall be made for collateral security, and not absolutely, such fact shall be stated expressly in the entry of transfer if, when the certificate or certificates shall be presented to the Corporation for transfer, both the transferor and the transferee request the Corporation to do so.

Section 6.03      **REGULATIONS.** The Board may make such rules and regulations as it may deem expedient, not inconsistent with these Bylaws, concerning the issue, transfer and registration of certificates for shares of the stock of the Corporation. The Board may appoint, or authorize any officer or officers to appoint, one or more transfer clerks or one or more transfer agents and one or more registrars, and may require all certificates for stock to bear the signature or signatures of any of them.

Section 6.04      **LOST, STOLEN, DESTROYED AND MUTILATED CERTIFICATES.** In any case of loss, theft, destruction, or mutilation of any certificate of stock, another may be issued in its place upon proof of such loss, theft, destruction, or mutilation and upon the giving of a bond of indemnity to the Corporation in such form and in such sums as the Board may direct; provided, however, that a new certificate may be issued without requiring any bond when, in the judgment of the Board, it is proper to do so.

Section 6.05      **REPRESENTATION OF SHARES OF OTHER CORPORATIONS.** The President or any Vice President and the Secretary or any Assistant Secretary of this Corporation are authorized to vote, represent and exercise on behalf of this Corporation all rights incident to all shares of any other corporation or corporations standing in the name of this Corporation. The authority herein granted to said officers to vote or represent on behalf of this Corporation any and all shares held by this Corporation in any other corporation or corporations may be exercised either by such officers in person or by any person authorized so to do by proxy or power of attorney duly executed by said officers.

## ARTICLE VII

### INDEMNIFICATION

Section 7.01 MANDATORY INDEMNIFICATION. Each person who at any time is or was a director of the Corporation, and is threatened to be or is made a party to any threatened, pending or completed action, suit or proceeding, whether civil or criminal, administrative, arbitral or investigative (a "Proceeding"), by reason of the fact that such person is or was a director of the Corporation, or is or was serving at the request of the Corporation as a director, officer, partner, venturer, proprietor, member, employee, trustee, agent or similar functionary of another domestic or foreign corporation, partnership, joint venture, sole proprietorship, trust, employee benefit plan or other for-profit or non-profit enterprise, whether the basis of a Proceeding is alleged action or inaction in such person's official capacity or in another capacity while holding such office, shall be indemnified and held harmless by the Corporation to the fullest extent authorized by the DGCL or any other applicable law as may from time to time be in effect (but, in the case of any such amendment or enactment, only to the extent that such amendment or law permits the Corporation to provide broader indemnification rights than such law prior to such amendment or enactment permitted the Corporation to provide), against all expense, liability and loss (including, without limitation, court costs and attorneys' fees, judgments, fines, excise taxes or penalties, and amounts paid or to be paid in settlement) actually and reasonably incurred or suffered by such person in connection with a Proceeding, and such indemnification shall continue as to a person who has ceased to be director of the Corporation or a director, officer, partner, venturer, proprietor, member, employee, trustee, agent or similar functionary of another domestic or foreign corporation, partnership, joint venture, sole proprietorship, trust, employee benefit plan or other for-profit or non-profit enterprise, and shall inure to the benefit of such person's heirs, executors and administrators. The Corporation's obligations under this Section A include, but are not limited to, the convening of any meeting, and the consideration of any matter thereby, required by statutes in order to determine the eligibility of any person for indemnification.

Section 7.02 PREPAYMENT OF EXPENSES. Expenses incurred by a director of the Corporation in defending a Proceeding shall be paid by the Corporation in advance of the final disposition of such Proceeding to the fullest extent permitted by, and only in compliance with, the DGCL or any other applicable laws as may from time to time be in effect, including, without limitation, any provision of the DGCL which requires, as a condition precedent to such expense advancement, the delivery to the Corporation of an undertaking, by or on behalf of such director, to repay all amounts so advanced if it shall ultimately be determined that such director is not entitled to be indemnified under Section A of this Article B or otherwise. Repayments of all amounts so advanced shall be upon such terms and conditions, if any, as the Corporation's Board of Directors deems appropriate.

Section 7.03 VESTING. The Corporation's obligation to indemnify and to prepay expense under Sections A and B of this Article B shall arise, and all rights granted to the Corporation's directors hereunder shall vest, at the time of the occurrence of the transaction or event to which a Proceeding relates, or at the time that the action or conduct to which such Proceeding relates was first taken or engaged in (or omitted to be taken or engaged in), regardless of when such Proceeding is first threatened, commenced, or completed. Notwithstanding any other provision of this Certificate of Incorporation or the Bylaws of the Corporation or otherwise, shall diminish or adversely affect any rights to indemnification or prepayment of expenses granted under Sections A and B of this Article B which shall have become vested as aforesaid prior to the date that such amendment or other corporate action is effective or taken, whichever is later.



Section 7.04 ENFORCEMENT. If a claim under Section A or Section B or both Sections A and B of this Article B is not paid in full by the Corporation within 30 days after a written claim has been received by the Corporation, the claimant may at any time thereafter bring suit in a court of competent jurisdiction against the Corporation to recover the unpaid amount of the claim and, if successful in whole or in part, the claimant shall also be entitled to be paid the expense of prosecuting such claim. It shall be a defense to any such suit (other than a suit brought to enforce a claim for expenses incurred in defending any Proceeding in advance of its final disposition where the required undertaking, if any is required, has been tendered to the Corporation) that the claimant has not met the standards of conduct which make it permissible under the DGCL or other applicable law to indemnify the claimant for the amount claimed, but the burden of proving such defense shall be on the Corporation. The failure of the Corporation (including its Board of Directors, independent .legal counsel, or stockholders) to have made a determination prior to the commencement of such suit as to whether indemnification is proper in the circumstances based upon the applicable standard of conduct set forth in the-DGCL or other applicable law shall neither be a defense to the action nor create a presumption that the claimant has not met the applicable standard of conduct. The termination of any Proceeding by judgment, order, settlement, conviction, or upon a plea of *nolo contendere* or its equivalent, shall not, of itself, create a presumption that the person did not act in good faith and in a manner which such person reasonably believed to be in or not opposed to the best interests of the Corporation, and, with respect to any criminal Proceeding, had reasonable cause to believe that his conduct was unlawful.

Section 7.05 NONEXCLUSIVE. The Indemnification and advancement of expenses provided by or granted pursuant to this Article B shall not be deemed exclusive of any other rights to which a person seeking indemnification may be entitled under any statute, bylaw, other provisions of this Certificate of Incorporation, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in such person's official capacity and as to action in another capacity while holding such office.

Section 7.06 PERMISSIVE INDEMNIFICATION. The rights to indemnification and prepayment of expenses which are conferred to the Corporation's directors by Sections A and B of this Article B may be conferred upon any officer, employee or agent of the Corporation if, and to the extent, authorized by the Board of Directors.

Section 7.07 INSURANCE. The Corporation shall have power to purchase and maintain insurance, at its expense, on behalf of any person who is or was a director, officer, employee, or agent of the Corporation, or is or was serving at the request of the Corporation as a director, officer, partner, venturer, proprietor, member, employee, trustee, agent or similar functionary of another domestic or foreign corporation, partnership, joint venture, sole proprietorship, trust, employee benefit plan or other for-profit or non-profit enterprise against any expense, liability or loss asserted against such person and incurred by such person in any such capacity, or arising out of such person's status as such, whether or not the Corporation would have power to indemnify such person against such expense, liability or loss under the Corporation's Bylaws, the provisions of this Article B, the DGCL or other applicable law.

ARTICLE VIII

MISCELLANEOUS

Section 8.01 SEAL. The Board shall provide a corporate seal, which shall be in the form of a circle and shall bear the name of the Corporation and words and figures showing that the Corporation was incorporated in the State of Delaware and showing the year of incorporation.

Section 8.02 WAIVER OF NOTICES. Whenever notice is required to be given under any provision of these bylaws, the Certificate of Incorporation or by law, a written waiver, signed by the person entitled to notice, whether before or after the time stated therein, shall be deemed equivalent to notice. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when a person attends a meeting for the express purpose of objecting at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the stockholders, directors, or members of a committee of directors need be specified in any written waiver of notice unless required by the Certificate of Incorporation.

Section 8.03 LOANS AND GUARANTIES. The Corporation may lend money to, or guarantee any obligation of, and otherwise assist any officer or other employee of the Corporation or of its subsidiaries, including any officer who is a director, whenever, in the judgment of the Board, such loan, guaranty or assistance may reasonably be expected to benefit the Corporation. The loan, guaranty, or other assistance may be with or without interest, and may be unsecured or secured in such manner as the Board shall approve, including, without limitation, a pledge of shares of stock of the Corporation.

Section 8.04 GENDER. All personal pronouns used in these Bylaws shall include the other genders, whether used in the masculine, feminine or neuter gender, and the singular shall include the plural, and vice versa, whenever and as often as may be appropriate.

Section 8.05 AMENDMENTS. These Bylaws, or any of them, may be rescinded, altered, amended or repealed, and new Bylaws may be made (i) by the Board, by vote of a majority of the number of directors then in office as directors, acting at any meeting of the Board or (ii) by the stockholders, by the vote of a majority of the outstanding shares of voting stock of the Corporation, at an annual meeting of stockholders, without previous notice, or at any special meeting of stockholders, provided that notice of such proposed amendment, modification, repeal or adoption is given in the notice of special meeting; provided, however, that Section 2.02 of these Bylaws can only be amended if that Section as amended would not conflict with the Corporation's Certificate of Incorporation. Any Bylaw made or altered by the stockholders may be altered or repealed by the Board or may be altered or repealed by the stockholders.

CERTIFICATE OF SECRETARY

The undersigned certifies:

(1) That the undersigned is duly elected and acting Secretary of ATLANTIC PHARMACEUTICALS, INC., a Delaware corporation; and

(2) That the foregoing Bylaws constitute the Bylaws of the Corporation as duly adopted by written consent dated the 2nd day of July, 1993 and as restated this 19th day of October, 1995.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed the seal of the Corporation this 19th day of October, 1995.

/s Michael S. Weiss

Michael S. Weiss, Esq., Secretary

[SEAL]

CERTIFICATE OF AMENDMENT  
OF THE BY-LAWS OF  
ATLANTIC PHARMACEUTICALS, INC.

On December 7, 1995, the By-Laws of this corporation were amended as follows:

Article 2, Section 2.02 of the By-Laws of this corporation was amended in its entirety to read as follows:

Section 2.02 SPECIAL MEETINGS. Special meetings of the stockholders of the Corporation for any purpose or purposes may be called at any time by the Board, or by a committee of the Board which, or officer of the corporation who, has been duly designated by the Board and whose powers and authority, as provided in a resolution of the Board or in the Bylaws, include the power to call such meetings or by one or more stockholders holding shares in the aggregate entitled to cast not less than 50% of the votes at that meeting, but such special meetings may not be called by any other person or persons; provided, however, that if and to the extent that any special meeting of stockholders may be called by any other person or persons specified in any provisions of the Certificate of Incorporation or any amendment thereto or any certificate filed under Section 151(g) of the General Corporation Law of the State of Delaware (or its successor statute as in effect from time to time hereafter), then such special meeting may also be called by the person or persons, in the manner, at the time and for the purposes so specified.

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NUMBER  
MHT 3415

SHARES

# Manhattan Pharmaceuticals, Inc.

NEW COMMON STOCK

INCORPORATED UNDER THE LAWS OF THE STATE OF DELAWARE

SEE REVERSE FOR  
CERTAIN DEFINITIONS

CUSIP 563116 40 5

THIS CERTIFIES THAT

is the owner of

FULLY PAID AND NON-ASSESSABLE SHARES OF COMMON STOCK OF \$0.001 PAR VALUE OF

**MANHATTAN PHARMACEUTICALS, INC.**

transferable on the books of the Corporation by the holder hereof in person or by duly authorized attorney upon surrender of this Certificate properly endorsed.

This Certificate is not valid unless countersigned and registered by the Transfer Agent and Registrar.

WITNESS the facsimile seal of the Corporation and the facsimile signatures of its duly authorized officers.

Dated:



*Michael M. ...*

CHIEF OPERATING AND FINANCIAL OFFICER

AUTHORIZED OFFICER

COUNTERSIGNED AND REGISTERED  
BY THE TRANSFER AGENT AND REGISTRAR  
OF MANHATTAN PHARMACEUTICALS, INC.  
TRANSFER AGENT AND REGISTRAR

## EMPLOYMENT AGREEMENT

This Agreement (this "Agreement"), effective as of November 1, 2011 (the "Effective Date"), by and between TG Therapeutics, Inc., a Delaware corporation with an address at 787 Seventh Avenue, New York, NY 10019 (the "Company"), and MICHAEL S. WEISS, having a mailing address at 300 East 77<sup>th</sup> Street, New York, New York 10075 (the "Executive").

### WITNESSETH:

**WHEREAS**, the Company desires to employ the Executive as Executive Chairman, Interim Chief Executive Officer and President of the Company, and the Executive desires to serve the Company in such capacity and as Chairman of the Board, upon the terms and subject to the conditions contained in this Agreement;

**NOW, THEREFORE**, in consideration of the mutual covenants and agreements herein contained, the parties hereto hereby agree as follows:

1. Employment.

(a) Services. The Executive will be employed by the Company as its Executive Chairman and will serve as Chairman of the Board of Directors of the Company (the "Board"). In addition, Executive shall be the Interim Chief Executive Officer and President of the Company until such time as the Company chooses to hire one or more individuals to replace Executive in those roles. The Executive will report to the Board and shall perform such duties as are consistent with his position as Executive Chairman and Interim CEO and President and as Chairman of the Board (the "Services"). The Executive agrees to perform such duties faithfully and to devote such of his time, attention and energies to the business of the Company as he deems necessary to carry out his role as Executive Chairman and Interim CEO and President and Chairman of the Board. The parties agree that, effective upon the date that the permanent CEO and President assumes such roles (the "Interim CEO and President Transition Date"), the Executive shall resign from the positions of Interim CEO and President. Following the Interim CEO and President Transition Date, the Executive shall serve as Executive Chairman and Chairman of the Board in accordance with the terms of this Agreement.

(b) Acceptance. The Executive hereby accepts such employment and agrees to render the Services, as of the Effective Date.

2. Term. The Executive's employment under this Agreement (the "Term") shall commence on the Effective Date, and shall continue until terminated pursuant to Section 9 of this Agreement.

3. Limited Extent of Service.

(a) Business Activities. Subject to Sections 6 and 7, Executive shall not be restricted from pursuing, or being actively engaged in, any other business activity, whether or not such business activity is pursued for gain, profit or other pecuniary advantage, and whether or not such business activity is currently existing or is hereafter conducted.

(b) Location. The duties to be performed by the Executive hereunder shall be performed primarily at the office of the Company that shall be established in or around New York City, subject to reasonable travel requirements on behalf of the Company, or such other place as the Board may reasonably designate. Notwithstanding the foregoing, the Executive's primary place of business may not be relocated to another city without his written consent.

4. Directorship. The Company shall use its best efforts to cause the Executive to be elected as a member of its Board, and to be selected as Chairman of the Board, throughout the Term and shall include him in the management slate for election as a director at every stockholders meeting during the Term at which his term as a director would otherwise expire. The Executive agrees to accept election, and to serve during the Term, as director of the Company, without any compensation therefor other than as specified in this Agreement.

5. Compensation. As full compensation for the performance by the Executive of his duties under this Agreement, the Company shall pay the Executive as follows:

(a) Base Salary. Commencing upon the date that the Company exercises the License Option pursuant to the Option Agreement between the LFB Biotechnologies S.A.S., LFB/GTC LLC and the Company, dated as of April 29, 2011, the Company shall pay the Executive an annualized salary (the "Base Salary") of Two Hundred Twenty-five Thousand Dollars (\$225,000). Payment shall be made bi-monthly in accordance with the Company's normal payroll practices. The Board shall review Executive's Base Salary annually and may increase (but not decrease) Executive's Base Salary from year to year. Such adjusted salary then shall become Executive's Base Salary for purposes of this Agreement. Notwithstanding the foregoing, immediately upon the Interim CEO and President Transition Date, Executive's Base Salary shall automatically be reduced by fifty percent (50%). The annual review of Executive's salary by the Board will consider, among other things, Executive's own performance, and the Company's performance.

(b) Annual Bonus. During the Term, the Executive shall be eligible to earn an annual cash bonus, based upon the achievement of annual performance goals and objectives established by agreement between the Executive and the Board before March 1 of each calendar year; provided, however, that the Executive shall have a target annual bonus of 100% of his Base Salary (such amount being referred to herein as the "Target Bonus"), subject to the Executive's achievement of such performance goals.

(c) Withholding. The Company shall withhold all applicable federal, state and local taxes and social security and such other amounts as may be required by law from all amounts payable to the Executive under this Section 5.

(d) Annual Grants of Restricted Stock. Commencing December 15, 2012, on each December 15<sup>th</sup> during the Term, the Company shall grant the Executive a number of restricted shares of the Company's common stock, par value \$0.001 ("Common Stock") equal to 1.25% of the shares of Common Stock outstanding on the date of grant on a fully-diluted basis ("Annual Restricted Stock Awards"). Each Annual Restricted Stock Award will vest and become non-forfeitable as to twenty-five percent (25%) of the shares on the first anniversary of the respective date of grant, as to twenty-five percent (25%) of the shares on the second anniversary of the respective date of grant and as to fifty percent (50%) of the shares on the date that the Market Capitalization (as defined herein) is \$100 million greater than the Market Capitalization on the respective date of grant, provided that the Executive remains an employee, director and/or consultant of the Company through each vesting date.

For purposes of this Agreement, “Market Capitalization” shall be determined by multiplying the total shares of the Company’s Common Stock that are outstanding at that time (including Common Stock issuable upon conversion, exchange or exercise of any derivative security, including without limitation, options, warrants, convertible equity or debt or restricted equity) by the last reported closing price of the Company’s Common Stock on a nationally recognized exchange or in the over-the-counter market.

(e) Additional Stock-Based Awards. During the Term, the Executive may be eligible for additional stock-based awards under the Company’s long-term incentive plan, as determined by the Board. Nothing herein requires the Board to make additional grants of options or other awards in any year.

(f) Expenses. During the Term, the Company shall reimburse the Executive for all reasonable expenses incurred by the Executive in furtherance of the business and affairs of the Company, including but not limited to travel, entertainment and other expenses deemed reasonably necessary by the Executive. The Executive will timely supply the Company with appropriate vouchers or other proof of the Executive’s expenditures and otherwise will comply with any expense reimbursement policy as may from time to time be adopted by the Company.

(g) Expense Reimbursement and Benefits. Notwithstanding anything in this Agreement to the contrary, any expense reimbursement or benefit provided pursuant to this Section 5 shall be subject to the following: (i) the amount of any expense reimbursement or benefit provided during the Executive’s taxable year shall not affect any expenses eligible for reimbursement or benefit to be provided in any other taxable year; (ii) the reimbursement of any eligible expense shall be made no later than the last day of the Executive’s taxable year that immediately follows the taxable year in which the expense was incurred; and (iii) the right to any such expense reimbursement or benefit shall not be subject to liquidation or exchange for another benefit.

(h) Other Benefits. During the Term, the Executive shall be entitled to all rights and benefits for which he shall be eligible under any benefit or other plans (including, without limitation, dental, medical, medical reimbursement and hospital plans, pension plans, employee stock purchase plans, profit sharing plans, bonus plans, prescription drug reimbursement plans, short and long term disability plans, life insurance and other so-called “fringe” benefits) as the Company shall make available to its senior executives from time to time. The Executive shall be eligible to participate in the Company’s 401(k) plan on the Effective Date, and his contributions to the 401(k) plan may begin on the first day of the fiscal quarter immediately following the Effective Date.

(i) Vacation. During the Term, the Executive shall be entitled to a vacation of twenty (20) days per annum, in addition to holidays observed by the Company. During the Term, the Executive shall not be entitled to carry forward vacation days from one calendar year of employment to the next calendar year of employment.



(j) Employment Agreement Expenses. Without limiting the foregoing, during calendar year 2011, the Company shall pay, on behalf of Executive, up to \$15,000 of legal fees and other expenses incurred by Executive in connection with the preparation, negotiation, and execution of this Agreement.

6. Non-Disclosure of Confidential Information and Trade Secrets; Return of Property; Invention Assignment.

(a) The Executive understands and agrees that the Confidential Information and Trade Secrets constitute valuable assets of the Company and may not be converted to his own use. The Executive hereby agrees that throughout the term of his employment and at all times after his separation from employment, for so long as the information at issue remains either Confidential Information or a Trade Secret, the Executive will not, directly or indirectly, reveal, divulge, or disclose to any person or entity not expressly authorized by the Company any Confidential Information or Trade Secrets and will not, directly or indirectly, use or make use of any Confidential Information or Trade Secrets in connection with any business activity other than that of the Company.

Anything herein to the contrary notwithstanding, the Executive shall not be restricted from disclosing or using Confidential Information or Trade Secrets that are required to be disclosed by law, court order or other legal process; provided, however, that in the event disclosure is required by law, the Executive shall provide the Company with prompt written notice of such requirement in time to permit the Company to seek an appropriate protective order or other similar protection prior to any such disclosure by the Executive.

The parties acknowledge and agree that this Agreement is not intended to, and will not, alter or diminish either the Company's rights or the Executive's obligations under any state or federal statutory or common law regarding confidential information, trade secrets and unfair trade practices and all potential remedies under such laws remain available.

For purposes of this Agreement, "Confidential Information" means all data and information relating to the business of the Company that is disclosed to the Executive or of which the Executive becomes aware as a consequence of his employment and that has value to the Company and is not generally known to those not employed or otherwise engaged by the Company. "Confidential Information" shall include, but is not limited to, financial plans and data concerning Company; management planning information; Company's business plans or strategies (including, without limitation, any merger or acquisition plans); sources of supply; "know how;" Company's operational methods; market studies; marketing plans or strategies; product development techniques or plans; client and prospective client lists; details of client, supplier and vendor contracts; current and anticipated client requirements; past, current and planned research and development; business acquisition plans; employee compensation and other personnel information; and new personnel acquisition plans. "Confidential Information" shall not include data or information (a) which has been voluntarily disclosed to the public by Company, except where such public disclosure was made without authorization from the Company; (b) which has been independently developed and disclosed by Persons other than the Company or its principals or representatives; or (c) which has otherwise entered the public domain through lawful means. This definition shall not limit any definition of "confidential information" or any equivalent term under applicable state or federal law.

For purposes of this Agreement, “Trade Secret” means information, without regard to form, relating to the Company, its activities, businesses or clients, including, but not limited to, technical or nontechnical data, a formula, a pattern, a compilation, a program, a device, a method, a technique, a drawing, a process, financial data, financial plans, product plans, or a list of actual or potential clients or suppliers, which is not commonly known by or available to the public via lawful means and which: (A) derives economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use; and (B) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy. Trade Secret shall include, but not be limited to, client lists, client billing and pricing information, technical information regarding the Company’s intellectual property, product development information, patent information and all other information permitted to be covered under the Uniform Trade Secrets Act. This definition shall not limit any definition of “trade secret” or any equivalent term under applicable state or federal law.

(b) The Executive agrees that he will not retain or destroy, and will immediately return to the Company on or prior to his last day of employment, or at any other time the Company requests such return, any and all property of the Company that is in his possession or subject to his control, including, but not limited to, keys, credit and identification cards, equipment, client files and information, and all Confidential Information and Trade Secrets. The Executive will not make, distribute or retain copies of any such information or property. The Executive agrees that he will reimburse the Company for all of its costs, including reasonable attorneys’ fees, of recovering the above materials and otherwise enforcing compliance with this provision if the Executive does not return the materials to the Company on or prior to his separation from employment or at any other time the materials are requested by Company, or if the Executive otherwise fails to comply with this provision.

(c) The Executive agrees that he will promptly and fully disclose in writing to the Company inventions, designs, concepts, discoveries, developments, improvements, and innovations, whether or not they merit patent, trademark or copyright protection, conceived of, designed or reduced to practice by the Executive, either solely or in concert with others, at any time during his employment, which (a) relate in any manner, whether at the time of conception, design or reduction to practice, to the Company’s business or its actual or demonstrably anticipated research or development; (b) result from any work performed by the Executive on behalf of the Company; or (c) result from the use of the Company’s equipment, supplies, facilities, Confidential Information or Trade Secrets (collectively referred to as “Inventions”).

The Executive acknowledges and agrees that he will keep and maintain adequate written records of all such Inventions at all stages thereof in the form of notes, sketches, drawings, photographs, printouts, and/or reports relating thereto. These records are and shall remain the property of, and be available to, the Company or its designee(s) at all times. Executive further acknowledges that all such Inventions shall be the exclusive property of the Company. As such, the Executive hereby assigns his entire right, title, and interest in and to all such Inventions to the Company or its designee(s). The Executive will, at the Company's request and expense, execute specific transfers, assignments, documents or other instruments and take such further action as may be considered necessary by the Company at any time during or subsequent to the Executive's employment to obtain and defend any intellectual property rights and vest complete title and ownership to such Inventions to the Company or its designee(s).

(d) The provisions of this Section 6 shall survive any termination of this Agreement.

7. Non-Competition and Non-Disparagement.

(a) The Executive acknowledges and agrees that his services to the Company are special, unique and extraordinary and that in the course of performing such services the Executive will be provided with and have access to and knowledge of Confidential Information and Trade Secrets that would be extremely valuable to competitors of the Company. The Executive further acknowledges and agrees that, due to the unique nature of the Company's business, the loss of any of its clients or the improper use of its Confidential and Proprietary Information could create significant instability and cause substantial and irreparable damage to the Company and therefore the Company has a strong legitimate business interest in protecting the continuity of its business interests and the restrictions herein agreed to by the Executive narrowly and fairly serves such an important and critical business interest of the Company.

(b) The Executive agrees that during his employment and for a period of twelve (12) months following the date of termination of the Executive's employment for any reason whatsoever, he shall not, directly or indirectly, on behalf of himself or any person, firm, partnership, joint venture, corporation or other business entity ("Person"), engage in any business that develops anti-CD20 monoclonal antibodies (the "Competitive Business") within the geographic area in which the Company does business, which is deemed by the parties hereto to be worldwide. Notwithstanding the foregoing, nothing contained in this Section 7(b) shall be deemed to prohibit the Executive from acquiring or holding, solely for investment, publicly traded securities of any corporation, some or all of the activities of which are deemed a Competitive Business so long as such securities do not, in the aggregate, constitute 9.9% or more of any class or series of outstanding securities of such corporation.

(c) The Executive agrees that during his employment and for a period of twelve (12) months following the date of termination of the Executive's employment for any reason whatsoever, he shall not directly or indirectly make any disparaging statement, whether or not true, with respect to the name or reputation of the Company or any of its affiliates, including but not limited to, any officer, director, employee or shareholder of the Company or any of its affiliates (as defined above). Notwithstanding this Section, nothing contained herein shall limit or impair the ability of the Executive to make truthful statements or disclosures that are required by applicable law, regulation, or legal process, including, but not limited to, providing truthful testimony in response to any validly issued subpoena.

(d) In the event that the Executive breaches any provisions of Section 6 or this Section 7 or there is a threatened breach, then, in addition to any other rights which the Company may have, the Company shall (i) be entitled, without the posting of a bond or other security, to seek injunctive relief to enforce the restrictions contained in such Sections and (ii) to the extent permitted by law, have the right to require the Executive to account to the Company all compensation, profits, monies, accruals, increments and other benefits (collectively "Benefits") derived or received by the Executive as a result of any transaction constituting a breach of any of the provisions of Sections 6 or 7 and the Executive hereby agrees to account for and pay over such Benefits to the Company. The Company and the Executive agree that any such action for injunctive relief shall be heard in any of the courts set forth in Section 13(c) below, and each of the parties hereto agrees to accept service of process by registered or certified mail and to otherwise consent to the jurisdiction of such courts.

(e) Each of the rights and remedies enumerated in Section 7(d) shall be independent of the others and shall be in addition to and not in lieu of any other rights and remedies available to the Company at law or in equity. If any of the covenants contained in Section 6 or this Section 7, or any part of any of them, is hereafter construed or adjudicated to be invalid or unenforceable, the same shall not affect the remainder of the covenant or covenants or rights or remedies which shall be given full effect without regard to the invalid portions. If any of the covenants contained in Section 6 or this Section 7 is held to be invalid or unenforceable because of the duration of such provision or the area covered thereby, the parties agree that the court or arbitrator making such determination shall have the power to reduce the duration and/or area of such provision and in its reduced form such provision shall then be enforceable. No such holding of invalidity or unenforceability in one jurisdiction shall bar or in any way affect the Company's right to the relief provided in this Section 7 or otherwise in the courts of any other state or jurisdiction within the geographical scope of such covenants as to breaches of such covenants in such other respective states or jurisdictions, such covenants being, for this purpose, severable into diverse and independent covenants.

(f) In the event that an actual proceeding is brought in equity to enforce the provisions of Section 6 or this Section 7, the Executive shall not urge as a defense that there is an adequate remedy at law nor shall the Company be prevented from seeking any other remedies which may be available. The Executive agrees that he shall not raise in any proceeding brought to enforce the provisions of Section 6 or this Section 7 that the covenants contained in such Sections limit his ability to earn a living.

(g) The provisions of this Section 7 shall survive any termination of this Agreement.

8. Representations and Warranties. The Executive hereby represents and warrants to the Company as follows:

(a) Neither the execution or delivery of this Agreement nor the performance by the Executive of his duties and other obligations hereunder violate or will violate any statute, law, determination or award, or conflict with or constitute a default or breach of any covenant or obligation under (whether immediately, upon the giving of notice or lapse of time or both) any prior employment agreement, contract, or other instrument to which the Executive is a party or by which he is bound.

(b) The Executive has the full right, power and legal capacity to enter and deliver this Agreement and to perform his duties and other obligations hereunder. This Agreement constitutes the legal, valid and binding obligation of the Executive enforceable against him in accordance with its terms. No approvals or consents of any persons or entities are required for the Executive to execute and deliver this Agreement or perform his duties and other obligations hereunder.

9. Termination. The Executive's employment hereunder shall be terminated upon the Executive's death and may be terminated as follows:

(a) The Executive's employment hereunder may be terminated by the Board for Cause. Any of the following actions by the Executive shall constitute "Cause":

(i) the Executive's breach of the covenants contained in Sections 6 and 7 hereof, or material breach of any other provision of this Agreement;

(ii) the willful and continual failure or refusal by the Executive to perform his duties under this Agreement (other than by reason of death or Disability (as defined below)), provided such failure or refusal continues for a period of thirty (30) days after receipt of written notice thereof from the Board in reasonable detail of such failure or refusal;

(iii) any action by Executive constituting willful misconduct in respect of the Executive's obligation to the Company that results in material, economic damage to the Company; and

(iv) conviction of a felony.

Notwithstanding the foregoing, the following shall not constitute Cause for the termination of the employment of the Executive or the modification or diminution of any of his authority hereunder: any personal or policy disagreement between the Company and the Executive, or the Executive and any member of the Board ; or any action taken by the Executive in connection with his duties hereunder if the Executive acted in good faith and in a manner he reasonably believed to be in, and not opposed to, the best interest of the Company.

(b) The Executive's employment hereunder may be terminated by the Board due to the Executive's Disability. For purposes of this Agreement, a termination for "Disability" shall occur (i) when the Board has provided a written termination notice to the Executive supported by a written statement from a reputable independent physician, after an appropriate examination, to the effect that the Executive shall have become so physically or mentally incapacitated as to be unable to resume, within the ensuing six (6) months, his employment under this Agreement by reason of physical or mental illness or injury or (ii) upon rendering of a written termination notice by the Board after the Executive has been unable to substantially perform his duties hereunder for ninety (90) or more consecutive days, or more than one hundred and eighty (180) days in any consecutive twelve month period, by reason of any physical or mental illness or injury. For purposes of this Section 9(b), the Executive agrees to make himself available and to cooperate in a reasonable examination by a reputable independent physician retained by the Company.

(c) The Executive's employment hereunder may be terminated by the Executive for Good Reason.

(i) For purposes of this Agreement, "Good Reason" shall mean the occurrence of any of the following without the Executive's express written consent (any of which shall constitute a "Good Reason Condition"):

(A) Failure to elect or reelect the Executive as Chairman of the Board, which constitutes a material reduction by the Company of the Executive's duties, responsibilities, or authority as of the Effective Date;

(B) any material breach of this Agreement by the Company;

(C) prior to the Interim CEO and President Transition Date, a material reduction by the Company of the Executive's duties, responsibilities, or authority as Executive Chairman and Interim CEO and President and Chairman of the Board which causes his position with the Company to become of materially less responsibility or authority than his position as of immediately following the Effective Date;

(D) following the Interim CEO and President Transition Date, a material reduction by the Company of the Executive's duties, responsibilities, or authority as Executive Chairman and Chairman of the Board;

(E) a material reduction in Executive's Base Salary, provided, however, that the reduction in the Executive's Base Salary by fifty percent (50%) effective upon the Interim CEO and President Transition Date contemplated by Section 5(a) hereof shall not constitute a material reduction in Executive's Base Salary for purposes of this subsection (E); or

(F) a material change in the geographic location at which the Executive must perform services (which, for purposes of this Agreement, means a relocation of the Company's principal place of business of the Executive outside of the New York City metropolitan area).

(ii) The Executive may terminate his employment for Good Reason for any of the reasons stated above only if (A) the Executive has provided the Company with written notice of the asserted Good Reason Condition within ninety (90) days after its initial existence; (B) the Company fails to cure the condition within thirty (30) days after receiving such written notice; and (C) the Executive terminates employment within two hundred and ten (210) days following Executive's written notice to the Company of the existence of the Good Reason condition. For the avoidance of doubt, the Executive's removal from the position of Interim CEO and President upon the Company's hiring a permanent CEO and President shall not constitute an event of Good Reason for purposes of this Agreement.

(d) The Executive's employment may be terminated by the Company without Cause or by the Executive with or without Good Reason on ninety (90) days prior written notice to the other party. The Company may terminate Executive's employment for Cause immediately.

10. Compensation upon Termination.

(a) If, during the Term, the Executive's employment is terminated as a result of his death or Disability, the Company shall pay to the Executive or to the Executive's estate, as applicable, (i) his Base Salary through the date of his termination, (ii) any benefits which Executive is eligible to receive under any Company plan (if disabled), (iii) any expense reimbursement amounts owed the Executive, and (iv) any accrued but unpaid annual bonuses earned by the Executive prior to the date of the Executive's death or termination for Disability. Subject to Section 10(e), any such payments of Base Salary and accrued but unpaid annual bonus shall be made to the Executive or to the Executive's estate, as applicable, within sixty (60) days after his death or termination for Disability. In addition, the Company shall pay to the Executive or the Executive's estate, as applicable, an amount equal to (A) the Target Bonus for the year in which the date of termination occurs, multiplied by (B) a fraction, the numerator of which is the number of days worked by the Executive during the year in which is date of termination occurs and the denominator of which is 365 (the "Prorated Target Bonus"). The Prorated Target Bonus shall be paid to the Executive or his estate in a lump sum in cash within sixty (60) days after his date of termination (or such later date as may be required pursuant to Section 10(e)). In addition, any shares of Annual Restricted Stock Awards outstanding on the date of his termination shall become fully-vested and non-forfeitable as of his date of termination. The vested portion of any stock options outstanding on the date of his termination shall remain exercisable by the Executive for a period of twenty (24) months following the date of his termination (or, if earlier, the normal expiration date of such stock options), and any unvested portion of outstanding stock options shall lapse and be forfeited without consideration as of the date of termination.

(b) If, during the Term, the Executive's employment is terminated by the Board for Cause or by the Executive without Good Reason, or if the Executive's employment terminates upon the expiration of the Term, then the Company shall pay to the Executive his Base Salary through the date of his termination, any expense reimbursement amounts owed the Executive, and any accrued but unpaid annual bonuses earned by the Executive prior to the date of the Executive's termination. The Executive shall have no further entitlement hereunder to any other compensation or benefits from the Company except to the extent otherwise provided by law. Any shares of unvested Annual Restricted Stock Awards outstanding on the date of his termination shall be forfeited without consideration as of the date of termination. The vested portion of any stock options outstanding on the date of his termination shall remain exercisable by the Executive for a period of thirty 30 days following the date of his termination (or, if earlier, the normal expiration date of such stock options), and any unvested portion of outstanding stock options shall lapse and be forfeited without consideration as of the date of termination.

(c) If, during the Term, the Executive's employment is terminated by the Company other than as a result of the Executive's death or Disability and other than for reasons specified in Section 10(b) or 10(d), or if the Executive terminates his employment for Good Reason other than as specified in Section 10(d), then, and, with respect to the payments and benefits described in clauses (i), (ii), (iii), (vi) and (vii) below, only if within forty-five (45) days after the date of termination, the Executive shall have executed a general release of claims and covenant not to sue in the form attached hereto as Exhibit A, and does not revoke such release of claims and covenant not to sue, the Company shall (i) pay to the Executive a lump sum severance payment equal to 1.5 times the sum of his Base Salary and Target Bonus, (ii) continue to provide to the Executive group health benefits for a period of eighteen (18) months following the date of termination; (iii) pay the Prorated Target Bonus; (iv) pay any accrued but unpaid annual bonus earned by the Executive; (v) pay any expense reimbursement amounts owed the Executive; (vi) any shares of Annual Restricted Stock Awards outstanding on the date of his termination shall become fully-vested and non-forfeitable as of his date of termination; and (vii) any stock options outstanding on the date of his termination shall become fully-vested and shall remain exercisable by the Executive for a period of twenty (24) months following the date of his termination (or, if earlier, the normal expiration date of such stock options). Subject to Section 10(e), the payments specified in clauses (i), (iii), (iv) and (v) of the preceding sentence shall be paid to the Executive in a lump sum within sixty (60) days following the Executive's date of termination.

(d) If, during the Term, the Executive's employment is terminated upon or following the occurrence of a Change in Control (as defined below) (X) by the Company (or its successor) other than as a result of the Executive's death or Disability and other than for reasons specified in Section 10(b), or (Y) by the Executive for Good Reason, then, provided that within forty-five (45) days after the date of termination, the Executive shall have executed a general release of claims and covenant not to sue in the form attached hereto as Exhibit A, and does not revoke such release of claims and covenant not to sue, the Company (or its successor, as applicable) shall (i) pay to the Executive a lump sum severance payment equal to two (2) times the sum of his Base Salary and Target Bonus; (ii) continue to provide to the Executive group health benefits for a period of twenty-four (24) months following the Executive's date of termination; (iii) pay the Prorated Target Bonus; (iv) pay any accrued but unpaid annual bonus earned by the Executive prior to the date of his termination; (v) pay any expense reimbursement amounts owed the Executive; (vi) any shares Annual Restricted Stock Awards outstanding on the date of his termination shall become fully-vested and non-forfeitable as of the date of his termination; and (vii) any stock options outstanding on the date of his termination shall become fully-vested and, provided that such stock options are not cancelled and cashed-out in connection with the Change in Control (as defined below), shall remain exercisable by the Executive for twenty (24) months following the date of his termination (or, if earlier, the normal expiration date of such stock options). Subject to Section 10(e), the payments specified in clauses (i), (iii), (iv) and (v) shall be paid to the Executive in a lump sum within sixty (60) days following the Executive's date of termination. For purposes of this Agreement, "Change in Control" means and includes the occurrence of any one of the following events but shall specifically exclude a Public Offering (as defined herein): (i) the acquisition, directly or indirectly, following the date hereof by any person (as such term is defined in Section 13(d) and 14(d)(2) of the Securities Exchange Act of 1934, as amended), in one transaction or a series of related transactions, of securities of the Company representing in excess of fifty percent (50%) or more of the combined voting power of the Company's then outstanding securities if such person or his or its affiliate(s) do not own in excess of fifty percent (50%) of such voting power on the Effective Date, but excluding an acquisition where the stockholders holding fifty percent (50%) of the voting power of the Company's then outstanding securities continue to hold fifty percent (50%) or more of the voting power of an entity that holds fifty percent (50%) or more of the voting power of the Company's then outstanding voting securities, or (ii) the future disposition by the Company (whether direct or indirect, by sale of assets or stock, merger, consolidation or otherwise) of all or substantially all of its business and/or assets in one transaction or series of related transactions (other than a merger effected exclusively for the purpose of changing the domicile of the Company). For purposes of this Agreement, "Public Offering" means a public offering of any class or series of the Company's equity securities pursuant to a registration statement filed by the Company under the Securities Act of 1933 Act, as amended.



(e) Notwithstanding anything to the contrary in this Agreement, the following shall apply to any benefits provided under this Agreement that constitute “deferred compensation” within the meaning of Section 409A of the Internal Revenue Code of 1986, as amended (the “Code”) and the regulations and other guidance thereunder and any state law of similar effect (collectively “Section 409A”):

(i) Any payment of such benefits shall not commence in connection with the Executive’s termination of employment unless and until the Executive has also incurred a “separation from service,” (as defined in Treasury Regulations Section 1.409A-1(h)) (“Separation from Service”) or such termination of employment is due to the Executive’s death, unless the Company reasonably determines that such amounts may be provided to the Executive without causing the Executive to incur the adverse personal tax consequences under Section 409A.

(ii) It is intended that (A) each installment of any such benefits be regarded as a separate “payment” for purposes of Treasury Regulations Section 1.409A-2(b)(2)(i), (B) all payments of any such benefits satisfy, to the greatest extent possible, the exemptions from the application of Section 409A provided under Treasury Regulations Sections 1.409A-1(b)(4) and 1.409A-1(b)(9)(iii), and (C) any such benefits consisting of premiums payable under the Consolidated Omnibus Budget Reconciliation Act of 1985 (“COBRA”) also satisfy, to the greatest extent possible, the exemption from the application of Section 409A provided under Treasury Regulations Section 1.409A-1(b)(9)(v). However, if the Company determines that any such benefits constitute “deferred compensation” under Section 409A and the Executive is a “specified employee” of the Company, as such term is defined in Section 409A(a)(2)(B)(i), then, solely to the extent necessary to avoid the imposition of the adverse personal tax consequences under Section 409A, (i) the timing of such benefit payments shall be delayed until the earlier of (a) the date that is six (6) months and one (1) day after the Executive’s Separation from Service and (b) the date of the Executive’s death (such applicable date, the “Delayed Initial Payment Date”), and (ii) the Company shall (a) pay the Executive a lump sum amount equal to the sum of the benefit payments that the Executive would otherwise have received through the Delayed Initial Payment Date if the commencement of the payment of the benefits had not been delayed pursuant to this paragraph and (b) commence paying the balance, if any, of the benefits in accordance with the applicable payment schedule.

(iii) Whenever in this Agreement a payment or benefit is conditioned on the Executive’s execution of a release of claims and covenant not to sue, the Company shall provide such release to the Executive promptly following the date of termination, and such release and covenant not to sue must be executed and all revocation periods shall have expired in accordance with terms set forth in the release, but in no case later than sixty (60) days after the date of termination; failing which such payment or benefit shall be forfeited. If such payment or benefit constitutes “deferred compensation” within the meaning of Section 409A of the Code, then, subject to subsection (ii) above, such payment or benefit (including any installment payments) that would have otherwise been payable during such 60-day period shall be accumulated and paid on the 60th day after the date of termination provided such release shall have been executed and such revocation periods shall have expired. If such payment or benefit is exempt from Section 409A of the Code, the Company may elect to make or commence payment at any time during such 60-day period.

(iv) Notwithstanding anything in this Agreement to the contrary, any expense reimbursement or benefit provided pursuant to Section 10 shall be subject to the following: (i) the amount of any expense reimbursement or benefit provided during the Executive's taxable year shall not affect any expenses eligible for reimbursement or benefit to be provided in any other taxable year; (ii) the reimbursement of any eligible expense shall be made no later than the last day of the Executive's taxable year that immediately follows the taxable year in which the expense was incurred; and (iii) the right to any such expense reimbursement or benefit shall not be subject to liquidation or exchange for another benefit.

(f) This Section 10 sets forth the only obligations of the Company with respect to the termination of the Executive's employment with the Company, and the Executive acknowledges that, upon the termination of his employment, he shall not be entitled to any payments or benefits which are not explicitly provided in Section 10.

(g) The obligations of the Company that arise under this Section 10 shall survive the expiration or earlier termination of this Agreement.

(h) For the avoidance of doubt, the Executive's removal from the position of Interim CEO and President upon the Company's hiring a permanent CEO and President shall not entitle him to any severance or benefits under this Agreement.

11. Mandatory Reduction of Payments in Certain Events.

(a) Anything in this Agreement to the contrary notwithstanding, in the event it shall be determined that any payment or distribution by the Company to or for the benefit of Executive (whether paid or payable or distributed or distributable pursuant to the terms of this Agreement or otherwise) (a "Payment") would be subject to the excise tax imposed by Section 4999 of the Code (the "Excise Tax"), then, prior to the making of any Payment to Executive, a calculation shall be made comparing (i) the net benefit to Executive of the Payment after payment of the Excise Tax, to (ii) the net benefit to Executive if the Payment had been limited to the extent necessary to avoid being subject to the Excise Tax. If the amount calculated under (i) above is less than the amount calculated under (ii) above, then the Payment shall be limited to the extent necessary to avoid being subject to the Excise Tax (the "Reduced Amount"). The reduction of the Payments due hereunder, if applicable, shall be made by first reducing cash Payments and then, to the extent necessary, reducing those Payments having the next highest ratio of Parachute Value to actual present value of such Payments as of the date of the change of control, as determined by the Determination Firm (as defined in Section 11(b) below). For purposes of this Section 11, present value shall be determined in accordance with Section 280G(d)(4) of the Code. For purposes of this Section 11, the "Parachute Value" of a Payment means the present value as of the date of the change of control of the portion of such Payment that constitutes a "parachute payment" under Section 280G(b)(2) of the Code, as determined by the Determination Firm for purposes of determining whether and to what extent the Excise Tax will apply to such Payment.

(b) The determination of whether an Excise Tax would be imposed, the amount of such Excise Tax, and the calculation of the amounts referred to Section 11(a)(i) and (ii) above shall be made by an independent, nationally recognized accounting firm or compensation consulting firm mutually acceptable to the Company and Executive (the “Determination Firm”) which shall provide detailed supporting calculations. Any determination by the Determination Firm shall be binding upon the Company and Executive. As a result of the uncertainty in the application of Section 4999 of the Code at the time of the initial determination by the Determination Firm hereunder, it is possible that Payments which Executive was entitled to, but did not receive pursuant to Section 11(a), could have been made without the imposition of the Excise Tax (“Underpayment”). In such event, the Determination Firm shall determine the amount of the Underpayment that has occurred and any such Underpayment shall be promptly paid by the Company to or for the benefit of Executive but no later than March 15 of the year after the year in which the Underpayment is determined to exist, which is when the legally binding right to such Underpayment arises.

(c) In the event that the provisions of Code Section 280G and 4999 or any successor provisions are repealed without succession, this Section 11 shall be of no further force or effect.

12. Indemnification. The Company shall defend and indemnify the Executive in his capacity as Executive Chairman, CEO and President and Chairman of the Board of the Company to the fullest extent permitted under to the Delaware General Corporate Law (the “DGCL”). The Company shall also establish a policy for indemnifying its officers and directors, including but not limited to the Executive, for all actions permitted under the DGCL taken in good faith pursuit of their duties for the Company, including but not limited to the obtaining of an appropriate level of Directors and Officers Liability coverage and including such provisions in the Company’s by-laws or certificate of incorporation, as applicable and customary. The rights to indemnification shall survive any termination of this Agreement.

13. Miscellaneous.

(a) This Agreement shall be governed by, and construed and interpreted in accordance with, the laws of the State of New York, without giving effect to its principles of conflicts of laws.

(b) Executive and Company agree that any and all controversies or claims (whether contract, tort or statutory) between Executive and the Company arising out of Executive’s employment, the termination of that employment, and any agreements previously or hereafter entered into by Executive and Company in connection with such employment relationship, that could have been filed in a court of law (or an administrative agency) shall be settled by final and binding arbitration. The claims covered by this Agreement include, but are not limited to, claims for wrongful termination, wages or other compensation due, breach of contract, tort, discrimination or harassment (including race, sex, religion, national origin, age, marital status, medical condition or disability), violation of any public policies, and claims for violation of federal, state or other governmental law, statute, regulation or ordinance.

(c) The arbitration shall be conducted in accordance with the National Rules for the Resolution of Employment Disputes of the American Arbitration Association then in effect before a single arbitrator mutually selected by the Executive and the Company. For the purpose of any judicial proceeding to enforce such award or incidental to such arbitration or to compel arbitration and for purposes of Sections 6 and 7 hereof, the parties hereby submit to the non-exclusive jurisdiction of the state or federal courts within the State of New York, as appropriate, and agree that service of process in such arbitration or court proceedings shall be satisfactorily made upon it if sent by registered mail addressed to it at the address referred to below in Section 13(m).

(d) The Arbitrator shall be empowered to award any party any remedy at law or in equity that the prevailing party would otherwise have been entitled to had the matter been litigated or pursued in a civil court or administrative forum including, but not limited to, general, special, and punitive damages, and injunctive relief. However, the Arbitrator's authority to award any remedy is subject to whatever limitations, if any, exist in the applicable law on such remedies. Any award pursuant to arbitration hereunder shall be included in a written decision that will state the legal and factual basis for the award and shall set forth the basis for calculating any damages award. The arbitrator's award, order or judgment shall be deemed final and binding upon the parties, except to the extent that it is shown to be violative of the law.

(e) A demand for arbitration must be submitted within the limitations period that would be applicable in court. If either party does not submit and serve a written demand for arbitration within the applicable statute of limitations, such failure shall constitute an absolute bar to the institution of any proceedings in any forum, and shall constitute a waiver of any rights regarding that claim.

(f) Neither party nor the arbitrator may disclose the existence, content or results of any arbitrations under this Agreement without the prior written consent of all parties hereto.

(g) Pending such resolution of any claim, the Executive shall be entitled to continue to receive all payments and benefits due under this Agreement or otherwise, unless the arbitration panel determines otherwise. Judgment on the arbitration award may be entered by any court of competent jurisdiction.

(h) Nothing in this Agreement shall prevent the parties from agreeing voluntarily after a claim or controversy has arisen to submit such claim or controversy to mediation or other informal settlement process. However, if the dispute is not resolved through mediation or such other process, it shall be submitted to binding arbitration pursuant to this Agreement.

(i) This Agreement shall be binding upon and inure to the benefit of the parties hereto, and their respective heirs, legal representatives, successors and assigns.

(j) This Agreement, and the Executive's rights and obligations hereunder, may not be assigned by the Executive. The Company may assign its rights, together with its obligations, hereunder in connection with any sale, transfer or other disposition of all or substantially all of its business or assets.

(k) This Agreement cannot be amended orally, or by any course of conduct or dealing, but only by a written agreement signed by the parties hereto.

(l) The failure of either party to insist upon the strict performance of any of the terms, conditions and provisions of this Agreement shall not be construed as a waiver or relinquishment of future compliance therewith, and such terms, conditions and provisions shall remain in full force and effect. No waiver of any term or condition of this Agreement on the part of either party shall be effective for any purpose whatsoever unless such waiver is in writing and signed by such party.

(m) All notices, requests, consents and other communications, required or permitted to be given hereunder, shall be in writing and shall be delivered personally or by an overnight courier service or sent by registered or certified mail, postage prepaid, return receipt requested, to the parties at the addresses set forth on the first page of this Agreement, and shall be deemed given when so delivered personally or by overnight courier or when actually received if sent by registered or certified mail. Each party may designate another address, for receipt of notices hereunder by giving notice to the other party in accordance with this paragraph (m) of this Section 13.

(n) This Agreement sets forth the entire agreement and understanding of the parties relating to the subject matter hereof, and supersedes all prior agreements, arrangements and understandings, written or oral, relating to the subject matter hereof. No representation, promise or inducement has been made by either party that is not embodied in this Agreement, and neither party shall be bound by or liable for any alleged representation, promise or inducement not so set forth.

(o) As used in this Agreement, "affiliate" of a specified Person shall mean and include any Person controlling, controlled by or under common control with the specified Person.

(p) The section headings contained herein are for reference purposes only and shall not in any way affect the meaning or interpretation of this Agreement.

(q) This Agreement may be executed in any number of counterparts, each of which shall constitute an original, but all of which together shall constitute one and the same instrument.

(r) As used in this Agreement, the masculine, feminine or neuter gender, and the singular or plural, shall be deemed to include the others whenever and wherever the context so requires. Additionally, unless the context requires otherwise, "or" is not exclusive.

*Remainder of Page Intentionally Left Blank; Signature Page Follows*

IN WITNESS WHEREOF, the parties hereto have executed this Agreement, which shall be deemed effective as of the Commencement Date set forth herein.

TG THERAPEUTICS, INC.

By: /s/ Michael S. Weiss

Name: Michael S. Weiss

Title: Chief Executive Officer

MICHAEL S. WEISS

/s/ Michael S. Weiss

RESTRICTED STOCK SUBSCRIPTION AGREEMENT

THIS RESTRICTED STOCK SUBSCRIPTION AGREEMENT ("Agreement") is dated as of November 15, 2011, by and between the undersigned (the "Purchaser") and TG Therapeutics, Inc., a Delaware corporation with a place of business at 787 Seventh Avenue, 48th Floor, New York, NY 10019 (the "Corporation" or "Company").

RECITALS

- A. WHEREAS, the Corporation desires to sell to Purchaser shares of Common Stock, par value \$.001 per share, of the Corporation (which class of shares is referred to herein as "Common Stock"), and Purchaser desires to purchase these shares, upon the terms and conditions herein specified; and
- B. WHEREAS, Purchaser is willing to subject the Stock (as defined herein) to the restrictions contained herein.
- C. WHEREAS, in connection with this Agreement, Purchaser and the Company have entered into an Employment Agreement dated as of November 1, 2011 (the "Employment Agreement").

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing recitals and of the mutual promises herein contained, the parties hereby agree as follows:

1. Issuance and Acquisition of Stock.

- (a) Immediately after the execution of this Agreement by the parties, the Corporation shall issue to the Purchaser, and the Purchaser shall acquire from the Corporation, the number of shares of Common Stock listed beside the Purchaser's name on the signature page hereto (the "Stock") for the total purchase price listed below the Purchaser's name on the signature page hereto (the "Purchase Price").
- (b) Within sixty days of execution of this Agreement, the Purchaser shall make payment for the Stock by delivering to the Corporation a check payable to the Corporation in the amount of the Purchase Price. Within ten business days after receipt by the Corporation of the Purchase Price, the Corporation shall deliver to the Purchaser a certificate or certificates evidencing the Stock, registered in the name of the Purchaser.
- (c) The Stock will be subject to a repurchase right in favor of the Company as set forth in Section 2 hereof.

(d) The number of shares of Stock listed in Section 2(b) shall vest the day following the date on which the Repurchase Option lapses (as provided in Section 2(b) below).

2. Repurchase Option.

(a) On the date that the Purchaser Terminates Service (as defined in subsection (c)(1) below), the Company shall have the right to repurchase from the Purchaser all, but not less than all, of the Stock (the "Repurchase Option"). The Repurchase Option may be exercised within the 30-day period immediately following the date that the Purchaser Terminates Service (the "Repurchase Period"). The Repurchase Option shall be exercised by the Company by giving the Purchaser written notice on or before the last day of the Repurchase Period of its intention to exercise the Repurchase Option, and, together with such notice, tendering to the Purchaser the Repurchase Price (as defined in subsection (c)(2) below).

(b) The Repurchase Option shall lapse as provided in the schedule below, or, as to all of the Stock, upon the earlier occurrence of a Change in Control (as defined in subsection (c)(4) hereof).

<u>Number of Shares</u>	<u>Date on which Repurchase Option Lapses</u>
125,000	November 15, 2012
125,000	November 15, 2013
125,000	November 15, 2014
125,000	November 15, 2015
250,000	The date on which the Company achieves a fully-diluted Market Capitalization (as defined in subsection (c)(5) below) of One Hundred Million Dollars (\$100,000,000)
250,000	The date on which the Company achieves a fully-diluted Market Capitalization of Two Hundred Million Dollars (\$200,000,000)



(c) (1) “Terminates Service” means the date that the Purchaser is no longer providing services to the Company as an employee, consultant or director.

(2) “Repurchase Price” shall be equal to the Fair Market Value of the Stock on the date that the Repurchase Option is exercised; provided, however, that if the Purchaser Terminates Service without Good Reason (as defined in subsection (c)(6) hereof), the Repurchase Price shall be \$0.001 per share.

(3) “Fair Market Value” shall be determined by an independent valuation firm hired by the Company, the choice of which must be reasonably agreeable to the Purchaser.

(4) “Change of Control” means and includes the occurrence of any one of the following events but shall specifically exclude a Public Offering (as defined herein): (i) the acquisition, directly or indirectly, following the date hereof by any person (as such term is defined in Section 13(d) and 14(d)(2) of the Securities Exchange Act of 1934, as amended), in one transaction or a series of related transactions, of securities of the Company representing in excess of fifty percent (50%) or more of the combined voting power of the Company’s then outstanding securities if such person or his or its affiliate(s) do not own in excess of fifty percent (50%) of such voting power on November 15, 2011, but excluding an acquisition where the stockholders holding fifty percent (50%) of the voting power of the Company’s then outstanding securities continue to hold fifty percent (50%) or more of the voting power of an entity that holds fifty percent (50%) or more of the voting power of the Company’s then outstanding voting securities, or (ii) the future disposition by the Company (whether direct or indirect, by sale of assets or stock, merger, consolidation or otherwise) of all or substantially all of its business and/or assets in one transaction or series of related transactions (other than a merger effected exclusively for the purpose of changing the domicile of the Company). For purposes of this Agreement, “Public Offering” means a public offering of any class or series of the Company’s equity securities pursuant to a registration statement filed by the Company under the Securities Act of 1933 Act, as amended.

(5) “Market Capitalization” shall be determined by multiplying the total shares of the Company’s Common Stock that are outstanding at that time (including Common Stock issuable upon conversion, exchange or exercise of any derivative security, including without limitation, options, warrants, convertible equity or debt or restricted equity) by the last reported closing price of the Company’s Common Stock on a nationally recognized exchange or in the over-the-counter market.

(6) “Good Reason” shall mean occurrence of any of the following without the Purchaser’s express written consent (any of which shall constitute a “Good Reason Condition”): (i) the failure to elect or reelect Purchaser as Chairman of the Board, which constitutes a material reduction by the Company of the Purchaser’s duties, responsibilities, or authority as of the effective date of the Employment Agreement; (ii) any material breach of the Employment Agreement by the Company; (iii) a material reduction by the Company of the Purchaser’s duties, responsibilities, or authority as Executive Chairman, CEO and President and Chairman of the Board which causes his position with the Company to become of less responsibility or authority than his position as of immediately following the effective date of the Employment Agreement; (iv) a material reduction in Purchaser’s base salary; or (v) a material change in the geographic location at which the Purchaser must perform services (which, for purposes of this Agreement, means a relocation of the Company’s principal place of business of the Purchaser outside of the New York City metropolitan area). The Purchaser may terminate his employment for Good Reason for any of the preceding reasons only if (A) the Purchaser has provided the Company with written notice of the asserted Good Reason Condition within ninety (90) days after its initial existence; (B) the Company fails to cure the condition within thirty (30) days after receiving such written notice; and (C) the Purchaser terminates employment within one hundred and eighty-five (185) days following the Purchaser’s written notice to the Company of the existence of the Good Reason condition.

(d) Any repurchase of the Stock by the Company shall take place at the principal executive offices of the Company, or at such other location designated by the Company, at the time and date set by the Company. Such sale shall be effected by the Purchaser’s delivery to the Company of a certificate or certificates evidencing the repurchased Stock, duly endorsed for transfer to the Company and free and clear of any and all liens, charges and encumbrances (except for restrictions under applicable securities laws) against payment to the Purchaser by the Company of the Repurchase Price by check for the repurchased Stock (which check may be delivered by mail). Upon payment of the Repurchase Price, the Company shall become the legal and beneficial owner of the Shares being repurchased and all rights and interests therein or relating thereto, and the Company shall have the right to retain and transfer to its own name the number of Shares being repurchased by the Company.

3. Violation Of Transfer Provisions. The Corporation shall not be required (i) to transfer on its books any shares of Stock which shall have been sold, transferred, assigned or pledged in violation of any of the provisions of this Agreement or (ii) to treat as owner of such shares or to accord the right to vote as such owner or to pay dividends to any such transferee to whom such shares shall have been so sold, transferred, assigned or pledged.

4. Securities Laws. The Purchaser represents and warrants to and covenants with the Corporation as follows:

(a) The Stock will be acquired by the Purchaser with the Purchaser's own funds for investment purposes and for the Purchaser's own account, not as a nominee or agent for any other person, firm or corporation, and not with a view to the sale or distribution of all or any part thereof, and the Purchaser has no present intention of selling, granting any participation in, or otherwise distributing, any or all of the Stock. The Purchaser does not have any contract, undertaking, agreement or arrangement with any person, firm or corporation to sell, transfer or grant any participation to any person, firm or corporation with respect to any or all of the Stock.

(b) The Purchaser understands that the Stock will not be registered under the Securities Act of 1933, as amended (the "Securities Act"), and that the Stock is being issued and sold to the Purchaser based upon an exemption from registration predicated in part on the accuracy and completeness of the Purchaser's representations and warranties appearing herein. The Purchaser agrees to hold the Corporation and its directors, officers, employees, controlling persons and agents and their respective heirs, representatives, successors and assigns harmless and to indemnify them against all liabilities, costs and expenses incurred by them as a result of, (i) any misrepresentation, omission or untrue statement of a material fact made by the Purchaser contained in this Agreement or (ii) any sale or distribution by the Purchaser in violation of the Act or any applicable state securities or "blue sky" laws.

(c) The Purchaser hereby acknowledges that the issuance of the Stock has not been reviewed by the United States Securities and Exchange Commission (the "SEC" or the "Commission") or any state regulatory authority, since the issuance is intended to be exempt from the registration requirements of Section 5 of the Act pursuant to Regulation D promulgated under the Act. The Purchaser agrees that in no event will the Purchaser sell, transfer, assign or pledge all or any part of the Stock or any interest therein, unless and until (i) the Purchaser shall have furnished the Corporation with an opinion of counsel satisfactory in form and content to the Corporation to the effect that (A) such disposition will not require registration of the Stock under the Securities Act or compliance with applicable state securities laws, or (B) appropriate action necessary for compliance with the Securities Act and applicable state securities laws has been taken, or the Corporation shall have waived, expressly and in writing, its right under clause (i) of this subsection, (ii) the proposed transferee of the Stock shall have provided the Corporation with a written agreement or undertaking by which such transferee agrees to be bound by all terms, conditions and limitations of this Agreement applicable to such transferee's transferor as if such transferee were a party hereto. The requirement of subparagraph (ii) shall not apply to any transfer (A) pursuant to an offering registered under the Securities Act, (B) pursuant to Rule 144 under the Securities Act or (C) effected in a market transaction otherwise exempt from registration under the Securities Act. Notwithstanding the foregoing (i) above, Purchaser can transfer to a family member, to a trust for benefit of a family member or to a limited partnership or corporation the beneficial owners of which are all family members.

(d) The Purchaser recognizes that the purchase of the Stock involves a high degree of risk including, but not limited to, the following: (i) the Corporation is a development stage business with limited operating history and requires substantial funds in addition to the proceeds of this investment; (ii) an investment in the Corporation is highly speculative, and only investors who can afford the loss of their entire investment should consider investing in the Corporation and the Stock; (iii) the Purchaser may not be able to liquidate his investment; (iv) transferability of the Stock is extremely limited; (v) in the event of a disposition, the Purchaser could sustain the loss of his entire investment and (vi) the Corporation has not paid any dividends since inception and does not anticipate the payment of dividends in the foreseeable future.

(e) The Purchaser is able to fend for itself in connection with the transactions contemplated by this Agreement, has such knowledge and experience in financial and business matters as to be capable of evaluating the merits and risks of its investment in the Corporation, as the ability to bear the economic risks of its investment for an indefinite period of time and can afford a complete loss of its investment, has had the opportunity prior to the Purchaser's purchase of the Stock to ask questions of and receive answers from representatives of the Corporation concerning the finances, operations and business of the Corporation. The Purchaser is not relying upon any statement, promise or assurance of any investor in the Corporation (or any representative of any such investor) in arriving at the Purchaser's decision to purchase the Stock, and has not otherwise been induced to purchase the Stock by any such investor (or any representative of any such investor), and the Purchaser has decided to purchase the Stock based upon the Purchaser's own analysis of the merits and risks of investing in the Corporation without the intervention or assistance of any other person, firm or corporation (or any representative of the foregoing). The Purchaser hereby represents that the Purchaser has been furnished by the Corporation during the course of this investment with all information regarding the Corporation which the Purchaser has requested or desired to know, has been afforded the opportunity to ask questions of and receive answers from duly authorized officers or other representatives of the Corporation concerning the terms and conditions of the investment and has received any additional information which the Purchaser has requested. The Purchaser represents that the Stock was not offered or sold to it by means of any form of general solicitation or general advertising, and in connection therewith the Purchaser did not (A) receive or review any advertisement, article, notice or other communication published in a newspaper or magazine or similar media or broadcast over television or radio whether closed circuit, or generally available; or (B) attend any seminar meeting or industry investor conference whose attendees were invited by any general solicitation or general advertising.

(f) The Purchaser understands that there is no public market for the Stock and that no market may develop for any such securities. The Purchaser understands that even if a public market develops for the Stock, restrictions on sale contained in this Agreement and under the Act still may prohibit resale. The Purchaser understands and hereby acknowledges that the Corporation is under no obligation to register any of the Stock other than as contained in paragraph 6. Except as otherwise provided in this Agreement, the Purchaser understands and acknowledges that (i) the Purchaser will not be permitted to sell, transfer, assign or pledge the Stock until it is registered under the Securities Act or an exemption from the registration and prospectus delivery requirements of the Securities Act is available to the Purchaser, and that there is no assurance that such an exemption from registration will ever be available or that the Purchaser will ever be able to sell any of the Stock, (ii) the share certificate(s) representing the Stock will be stamped with the legends specified in paragraph 3(g) hereof and (iii) the Corporation will make a notation in its records of the aforementioned restriction and transfer legends and that, in order to ensure compliance with the restrictions referred to herein, the Corporation may issue appropriate "stop transfer" instructions to its transfer agent, if any, and that, if the Corporation transfers its own securities, it may make appropriate notations to the same effect in its own records.

(g) All certificates representing the Stock and, until such time as the Stock is sold in an offering which is registered under the Securities Act or the Corporation shall have received an opinion of counsel satisfactory in form and content to the Corporation that such registration is not required in connection with a resale (or subsequent resale) of the Stock, all certificates issued in transfer thereof or substitution therefor, shall, where applicable, have endorsed thereon the following (or substantially equivalent) legends:

(i) THE SECURITIES REPRESENTED BY THIS CERTIFICATE MAY NOT BE OFFERED FOR SALE, TRANSFERRED, SOLD, ASSIGNED, PLEDGED, HYPOTHECATED OR OTHERWISE ENCUMBERED OR DISPOSED OF (A "TRANSFER") UNLESS SUCH TRANSFER COMPLIES WITH THE PROVISIONS OF THIS AGREEMENT . THE SECURITIES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "ACT"), OR UNDER ANY STATE SECURITIES OR "BLUE SKY" LAWS. ACCORDINGLY, NO TRANSFER OF THE SECURITIES REPRESENTED BY THIS CERTIFICATE MAY BE MADE EXCEPT IN ACCORDANCE WITH THE AGREEMENT AND (A) PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT OR AMENDMENT THERETO UNDER THE ACT OR (B) PURSUANT TO AN EXEMPTION FROM REGISTRATION UNDER THE ACT AND UNDER ANY APPLICABLE STATE SECURITIES OR "BLUE SKY" LAWS.

(ii) THE SECURITIES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO A REPURCHASE RIGHT IN FAVOR OF THE COMPANY AS OUTLINED IN THE STOCK PURCHASE AGREEMENT.

(ii) Any legend required to be placed thereon by any applicable state securities law.

(h) The Purchaser's principal residence is as set forth on the signature page hereof.

(i) The Purchaser represents that the Purchaser has full power and authority (corporate, statutory and otherwise) to execute and deliver this Agreement and to purchase the Stock. This Agreement constitutes the legal, valid and binding obligation of the Purchaser, enforceable against the Purchaser in accordance with its terms.

(j) The Purchaser represents and warrants that it has not engaged, consented to nor authorized any broker, finder or intermediary to act on its behalf, directly or indirectly, as a broker, finder or intermediary in connection with the transactions contemplated by this Agreement. The Purchaser shall indemnify and hold harmless the Corporation from and against all fees, commissions or other payments owing to any such person or firm acting on behalf of such Purchaser hereunder.

#### 5 State Securities Laws Representations.

The Purchaser hereby acknowledges that it has been advised and that it understands the following:

IN MAKING AN INVESTMENT DECISION A PURCHASER MUST RELY ON ITS OWN EXAMINATION OF THE COMPANY AND THE TERMS OF THE OFFERING, INCLUDING THE MERITS AND RISKS INVOLVED. THESE SECURITIES HAVE NOT BEEN RECOMMENDED BY ANY FEDERAL OR STATE SECURITIES COMMISSION OR REGULATORY AUTHORITY. FURTHERMORE, THE FOREGOING AUTHORITIES HAVE NOT CONFIRMED THE ACCURACY OR DETERMINED THE ADEQUACY OF THIS DOCUMENT. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

THESE SECURITIES ARE SUBJECT TO RESTRICTIONS ON TRANSFERABILITY AND RESALE AND MAY NOT BE TRANSFERRED OR RESOLD EXCEPT AS PERMITTED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, AND THE APPLICABLE STATE SECURITIES LAWS, PURSUANT TO REGISTRATION OR EXEMPTION THEREFROM. PURCHASERS SHOULD BE AWARE THAT THEY MAY BE REQUIRED TO BEAR THE FINANCIAL RISKS OF THIS INVESTMENT FOR AN INDEFINITE PERIOD OF TIME.

6. Representations by, and Covenants of, the Corporation. The Corporation represents, warrants and, where applicable, covenants to the Purchaser as of the date hereof:

(a) The Corporation is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware and has the corporate power to conduct the business which it proposes to conduct;

(b) The execution, delivery and performance of this Agreement by the Corporation will have been duly approved by the Board of Directors of the Corporation and all other actions required to authorize and effect the offer and sale of the shares of Common Stock will have been duly taken and approved;

(c) The shares of Common Stock purchased pursuant hereto have been duly and validly authorized and when issued against payment of the purchase price therefor in accordance with the terms hereof, will be duly and validly issued, fully paid and non-assessable;

(d) The Corporation is not in any material respect in violation of or in default in any material respect under, nor will the execution and delivery of this Agreement, or the issuance of the Common Stock and the incurrence of the obligations herein set forth and the consummation of the transactions herein contemplated, result in a material violation of, or constitute a material default under, the Restated Certificate of Incorporation or the By-Laws of the Corporation.

7. "Piggy-back" Registration Rights.

(a) If (but without any obligation to do so) at anytime following the date which is 180 days after the IPO (as defined below) or the first date which the Corporation is publicly traded, the Corporation proposes to register any of its stock or other securities under the Act in connection with the public offering of such securities solely for cash (other than a registration statement on Form S-4 or S-8 or any other form which does not include substantially the same information as would be required in a form for the general registration of securities), the Corporation shall, at such time, promptly give each Purchaser written notice of such registration. Upon the written request of each Purchaser given within ten (10) days after mailing of such notice by the Corporation in accordance with paragraph 8(b), the Corporation shall, subject to the limitations set forth in paragraph 6(b) below, include in the Corporation's registration statement under the Act all of the Common Stock that each such Purchaser has requested to be registered; provided, however, that nothing in this Section 6(a) shall prevent the Corporation from at any time abandoning or delaying any such registration without obligation to any Purchaser.

(b) Notwithstanding the provisions of paragraph 6(a) above, in connection with any offering involving an underwriting of shares of the Corporation's capital stock, the Corporation shall not be required under paragraph 6(a) to include any of the Purchasers' Stock in such underwriting unless they accept the terms of the underwriting as agreed upon between the Corporation and the underwriters selected by it (or by other persons entitled to select the underwriters), and then only in such quantity as the underwriters determine in their sole discretion will not jeopardize the success of the offering by the Corporation. If the total amount of Stock requested by Purchaser (together with other potential selling stockholders) to be included in such offering exceeds the amount of securities that the underwriters determine in their sole discretion is compatible with the success of the offering, then the Corporation shall be required to include in the offering only that number of such securities which the underwriters determine in their sole discretion will not jeopardize the success of the offering (the securities so included to be apportioned pro rata among the selling stockholders according to the total amount of securities entitled to be included therein owned by each selling stockholder or in such other proportions as shall mutually be agreed to by such selling stockholders). In apportioning the securities to be included in the offering, the Corporation shall have the first right to include 100% of its desired shares in the offering without cut-backs.



8. Confidential Information.

Purchaser agrees to hold in strictest confidence, and not to use, except for the benefit of the Company or its shareholders, or to disclose to any person, firm or corporation without written authorization of the Board of Directors of the Company, any Confidential Information of the Company. For purposes of this Agreement, "Confidential Information" means any Company proprietary information, technical data, trade secrets or know-how, including, but not limited to, research, product plans, products, services, customer lists and customers, markets, software developments, inventions, processes, formulas, technology, designs, drawings, engineering, hardware configuration information, marketing, finances, investors or other business information disclosed to Purchaser by the Company either directly or indirectly in writing, orally or by drawings or observation of parts or equipment. Confidential Information does not include any of the foregoing items which (i) has become publicly known and made generally available through no wrongful act of Purchaser or of others who were under confidentiality obligations as to the item or items involved, (ii) was within the Purchaser's possession prior to its being furnished to the Purchaser by or on behalf of the Company, provided that the source of such information was not known by the Purchaser to be bound by a confidentiality agreement with or other contractual, legal or fiduciary obligation of confidentiality to the Company, (iii) is or becomes available to the Purchaser on a non-confidential basis from a source other than the Company or any of its representatives, provided that such source was not known by the Purchaser to be bound by a confidentiality agreement with or other contractual, legal or fiduciary obligation of confidentiality to the Company or any other party with respect to such information, (iv) is independently developed by the Purchaser without use of Confidential Information, (v) is disclosed under operation of law, provided that, to the extent legally possible, Purchaser shall have given the Company reasonable notice and opportunity to oppose such disclosure or (vi) is disclosed by the Purchaser or its representatives with the Company's prior written approval.

9. General Provisions.

(a) No Assignments. The Purchaser shall not transfer, assign or encumber any of its rights, privileges, duties or obligations under this Agreement without the prior written consent of the Corporation, and any attempt to so transfer, assign or encumber shall be void.

(b) Notices. All notices and other communications which are required or permitted to be given pursuant to the terms of this Agreement shall be in writing and shall be sufficiently given (i) if personally delivered, (ii) if sent by telex or facsimile, provided that "answer-back" confirmation is received by the sender or (iii) upon receipt, if sent by registered or certified mail, postage paid return receipt requested in any case addressed as follows:

- (i) If to the Corporation at the address first written above, attention CEO.
- (ii) If to the Purchaser, to the address set forth on the signature page of this Agreement.

The address of a party, for the purposes of this Section 8(b), may be changed by giving written notice to the other party of such change in the manner provided herein for giving notice. Unless and until such written notice is received, the addresses as provided herein shall be deemed to continue in effect for all purposes hereunder.

(c) Standoff Agreement. The Purchaser agrees that, in connection with an underwritten initial public offering (the “IPO”) registered under the Securities Act of shares of Common Stock or other equity securities of the Corporation by or on behalf of the Corporation, the Purchaser shall not sell or transfer, or offer to sell or transfer, any shares of Common Stock or other equity securities of the Corporation for such period as the managing underwriter of such offering determines is necessary to effect the IPO.

(d) Choice of Law; Consent to Jurisdiction. This Agreement shall be governed by and construed in accordance with the internal laws (without giving effect to the conflicts of law principles) of the State of New York.

(e) Severability. The parties hereto agree that the terms and provisions in this Agreement are reasonable and shall be binding and enforceable in accordance with the terms hereof and, in any event, that the terms and provisions of this Agreement shall be enforced to the fullest extent permissible under law. In the event that any term or provision of this Agreement shall for any reason be adjudged to be unenforceable or invalid, then such unenforceable or invalid term or provision shall not affect the enforceability or validity of the remaining terms and provisions of this Agreement, and the parties hereto hereby agree to replace such unenforceable or invalid term or provision with an enforceable and valid arrangement which, in its economic effect, shall be as close as possible to the unenforceable or invalid term or provision.

(f) Successors. All references in this Agreement to the Corporation shall include any and all successors in interest to the Corporation whether by merger, consolidation, sale of all or substantially all assets or otherwise, and this Agreement shall inure to the benefit of the successors and assigns of the Corporation and, subject to the terms herein set forth, shall be binding upon the Purchaser, its successors and permitted assigns.

(g) Counterparts. This Agreement may be executed in two counterparts, each of which shall be deemed an original, but which together shall constitute one and the same instrument.

(h) Modification, Amendment and Waiver. No modification, amendment or waiver of any provision of this Agreement shall be effective against the Corporation unless the same shall be in a written instrument signed by an officer of the Corporation on its behalf and such instrument is approved by its Board of Directors. The failure at any time to enforce any of the provisions of this Agreement shall in no way be construed as a waiver of such provisions and shall not affect the right of either party thereafter to enforce each and every provision hereof in accordance with its terms.

(i) Further Assurances. The parties agree to execute such further instruments and to take such further action as may reasonably be necessary to carry out the intent of this Agreement.

(j) Integration. This Agreement constitutes the entire agreement of the parties with respect to the subject matter hereof.

(k) Headings. The headings of the Sections and paragraphs of this Agreement have been inserted for convenience of reference only and do not constitute a part of this Agreement.

(l) Gender and Number. As used in this Agreement, the masculine, feminine or neuter gender, and the singular or plural, shall be deemed to include the others whenever and wherever the context so requires. Additionally, unless the context requires otherwise, “or” is not exclusive.

IN WITNESS WHEREOF, the parties hereto have duly executed this Agreement, or caused this Agreement to be duly executed by their respective officers, partners or other representatives, thereunto duly authorized, all as of the day and year first above written.

TG THERAPEUTICS, INC.

By: /s/ Michael S. Weiss

Name: Michael S. Weiss

Title: Chairman & Chief Executive Officer

PURCHASER:

By: /s/ Michael S. Weiss

Name: Michael S. Weiss

Address: \_\_\_\_\_

Tax#: \_\_\_\_\_

NUMBER OF SHARES  
OF COMMON STOCK  
SUBSCRIBED FOR:

PURCHASE PRICE  
PER SHARE:

\$.001

TOTAL PURCHASE  
PRICE:

\$ \_\_\_\_\_

## EMPLOYMENT AGREEMENT

This Agreement (this "Agreement"), effective as of November 1, 2011 (the "Effective Date"), by and between TG Therapeutics, Inc., a Delaware corporation with an address at 787 Seventh Avenue, New York, NY 10019 (the "Company"), and SEAN A. POWER, having a mailing address at 14 Pokahoe Drive, Sleepy Hollow, NY 10591 (the "Executive").

### WITNESSETH:

**WHEREAS**, the Company desires to employ the Executive as Chief Financial Officer ("CFO") of the Company, and the Executive desires to serve the Company in such capacity upon the terms and subject to the conditions contained in this Agreement;

**NOW, THEREFORE**, in consideration of the mutual covenants and agreements herein contained, the parties hereto hereby agree as follows:

1. Employment.

(a) Services. The Executive will be employed by the Company as its Chief Financial Officer. The Executive will report to the Chief Executive Officer ("CEO") and shall perform such duties as are consistent with his position as CFO (the "Services"). The Executive agrees to perform such duties faithfully and to devote such of his time, attention and energies to the business of the Company as he deems necessary to carry out his role as CFO.

(b) Acceptance. The Executive hereby accepts such employment and agrees to render the Services, as of the Effective Date.

2. Term. The Executive's employment under this Agreement (the "Term") shall commence on the Effective Date, and shall continue until terminated pursuant to Section 9 of this Agreement.

3. Limited Extent of Service.

(a) Business Activities. Subject to Sections 5 and 6, Executive shall not be restricted from pursuing, or being actively engaged in, any other business activity, whether or not such business activity is pursued for gain, profit or other pecuniary advantage, and whether or not such business activity is currently existing or is hereafter conducted.

(b) Location. The duties to be performed by the Executive hereunder shall be performed primarily at the office of the Company that shall be established in or around New York City, subject to reasonable travel requirements on behalf of the Company, or such other place as the Board may reasonably designate. Notwithstanding the foregoing, the Executive's primary place of business may not be relocated to another city without his written consent.

4. Compensation. As full compensation for the performance by the Executive of his duties under this Agreement, the Company shall pay the Executive as follows:

(a) Base Salary. Commencing upon the date that the Company exercises the License Option pursuant to the Option Agreement between the LFB Biotechnologies S.A.S., LFB/GTC LLC and the Company, dated as of April 29, 2011, the Company shall pay the Executive an annualized salary (the "Base Salary") of One Hundred Thirty-five Thousand Dollars (\$135,000). Payment shall be made bi-monthly in accordance with the Company's normal payroll practices. The CEO and Board shall review Executive's Base Salary annually and may increase (but not decrease) Executive's Base Salary from year to year. Such adjusted salary then shall become Executive's Base Salary for purposes of this Agreement. The annual review of Executive's salary by the Board will consider, among other things, Executive's own performance, and the Company's performance.

(b) Annual Bonus. During the Term, the Executive shall be eligible to earn an annual cash bonus, based upon the achievement of annual performance goals and objectives established by agreement between the Executive and the Board before March 1 of each calendar year; provided, however, that the Executive shall have a target annual bonus of 33% of his Base Salary (such amount being referred to herein as the "Target Bonus"), subject to the Executive's achievement of such performance goals.

(c) Withholding. The Company shall withhold all applicable federal, state and local taxes and social security and such other amounts as may be required by law from all amounts payable to the Executive under this Section 4.

(d) Annual Grants of Restricted Stock. Commencing December 15, 2012, and on each December 15<sup>th</sup> during the Term, the Company shall grant the Executive a number of restricted shares of the Company's common stock, par value \$0.001 ("Common Stock") as determined by the CEO and Board ("Annual Restricted Stock Awards"). Each Annual Restricted Stock Award be subject to vesting terms, which will be decided at the time of grant by the CEO and Board.

(e) Additional Stock-Based Awards. During the Term, the Executive may be eligible for additional stock-based awards under the Company's long-term incentive plan, as determined by the Board. Nothing herein requires the Board to make additional grants of options or other awards in any year.

(f) Expenses. During the Term, the Company shall reimburse the Executive for all reasonable expenses incurred by the Executive in furtherance of the business and affairs of the Company, including but not limited to travel, entertainment and other expenses deemed reasonably necessary by the Executive. The Executive will timely supply the Company with appropriate vouchers or other proof of the Executive's expenditures and otherwise will comply with any expense reimbursement policy as may from time to time be adopted by the Company.

(g) Expense Reimbursement and Benefits. Notwithstanding anything in this Agreement to the contrary, any expense reimbursement or benefit provided pursuant to this Section 4 shall be subject to the following: (i) the amount of any expense reimbursement or benefit provided during the Executive's taxable year shall not affect any expenses eligible for reimbursement or benefit to be provided in any other taxable year; (ii) the reimbursement of any eligible expense shall be made no later than the last day of the Executive's taxable year that immediately follows the taxable year in which the expense was incurred; and (iii) the right to any such expense reimbursement or benefit shall not be subject to liquidation or exchange for another benefit.

(h) Other Benefits. During the Term, the Executive shall be entitled to all rights and benefits for which he shall be eligible under any benefit or other plans (including, without limitation, dental, medical, medical reimbursement and hospital plans, pension plans, employee stock purchase plans, profit sharing plans, bonus plans, prescription drug reimbursement plans, short and long term disability plans, life insurance and other so-called "fringe" benefits) as the Company shall make available to its senior executives from time to time. The Executive shall be eligible to participate in the Company's 401(k) plan on the Effective Date, and his contributions to the 401(k) plan may begin on the first day of the fiscal quarter immediately following the Effective Date.

(i) Vacation. During the Term, the Executive shall be entitled to a vacation of twenty (20) days per annum, in addition to holidays observed by the Company. During the Term, the Executive shall not be entitled to carry forward vacation days from one calendar year of employment to the next calendar year of employment.

(j) Employment Agreement Expenses. Without limiting the foregoing, during calendar year 2011, the Company shall pay, on behalf of Executive, up to \$2,500 of legal fees and other expenses incurred by Executive in connection with the preparation, negotiation, and execution of this Agreement.

5. Non-Disclosure of Confidential Information and Trade Secrets; Return of Property; Invention Assignment.

(a) The Executive understands and agrees that the Confidential Information and Trade Secrets constitute valuable assets of the Company and may not be converted to his own use. The Executive hereby agrees that throughout the term of his employment and at all times after his separation from employment, for so long as the information at issue remains either Confidential Information or a Trade Secret, the Executive will not, directly or indirectly, reveal, divulge, or disclose to any person or entity not expressly authorized by the Company any Confidential Information or Trade Secrets and will not, directly or indirectly, use or make use of any Confidential Information or Trade Secrets in connection with any business activity other than that of the Company.

Anything herein to the contrary notwithstanding, the Executive shall not be restricted from disclosing or using Confidential Information or Trade Secrets that are required to be disclosed by law, court order or other legal process; provided, however, that in the event disclosure is required by law, the Executive shall provide the Company with prompt written notice of such requirement in time to permit the Company to seek an appropriate protective order or other similar protection prior to any such disclosure by the Executive.

The parties acknowledge and agree that this Agreement is not intended to, and will not, alter or diminish either the Company's rights or the Executive's obligations under any state or federal statutory or common law regarding confidential information, trade secrets and unfair trade practices and all potential remedies under such laws remain available.

For purposes of this Agreement, "Confidential Information" means all data and information relating to the business of the Company that is disclosed to the Executive or of which the Executive becomes aware as a consequence of his employment and that has value to the Company and is not generally known to those not employed or otherwise engaged by the Company. "Confidential Information" shall include, but is not limited to, financial plans and data concerning Company; management planning information; Company's business plans or strategies (including, without limitation, any merger or acquisition plans); sources of supply; "know how;" Company's operational methods; market studies; marketing plans or strategies; product development techniques or plans; client and prospective client lists; details of client, supplier and vendor contracts; current and anticipated client requirements; past, current and planned research and development; business acquisition plans; employee compensation and other personnel information; and new personnel acquisition plans. "Confidential Information" shall not include data or information (a) which has been voluntarily disclosed to the public by Company, except where such public disclosure was made without authorization from the Company; (b) which has been independently developed and disclosed by Persons other than the Company or its principals or representatives; or (c) which has otherwise entered the public domain through lawful means. This definition shall not limit any definition of "confidential information" or any equivalent term under applicable state or federal law.

For purposes of this Agreement, "Trade Secret" means information, without regard to form, relating to the Company, its activities, businesses or clients, including, but not limited to, technical or nontechnical data, a formula, a pattern, a compilation, a program, a device, a method, a technique, a drawing, a process, financial data, financial plans, product plans, or a list of actual or potential clients or suppliers, which is not commonly known by or available to the public via lawful means and which: (A) derives economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use; and (B) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy. Trade Secret shall include, but not be limited to, client lists, client billing and pricing information, technical information regarding the Company's intellectual property, product development information, patent information and all other information permitted to be covered under the Uniform Trade Secrets Act. This definition shall not limit any definition of "trade secret" or any equivalent term under applicable state or federal law.

(b) The Executive agrees that he will not retain or destroy, and will immediately return to the Company on or prior to his last day of employment, or at any other time the Company requests such return, any and all property of the Company that is in his possession or subject to his control, including, but not limited to, keys, credit and identification cards, equipment, client files and information, and all Confidential Information and Trade Secrets. The Executive will not make, distribute or retain copies of any such information or property. The Executive agrees that he will reimburse the Company for all of its costs, including reasonable attorneys' fees, of recovering the above materials and otherwise enforcing compliance with this provision if the Executive does not return the materials to the Company on or prior to his separation from employment or at any other time the materials are requested by Company, or if the Executive otherwise fails to comply with this provision.



(c) The Executive agrees that he will promptly and fully disclose in writing to the Company inventions, designs, concepts, discoveries, developments, improvements, and innovations, whether or not they merit patent, trademark or copyright protection, conceived of, designed or reduced to practice by the Executive, either solely or in concert with others, at any time during his employment, which (a) relate in any manner, whether at the time of conception, design or reduction to practice, to the Company's business or its actual or demonstrably anticipated research or development; (b) result from any work performed by the Executive on behalf of the Company; or (c) result from the use of the Company's equipment, supplies, facilities, Confidential Information or Trade Secrets (collectively referred to as "Inventions").

The Executive acknowledges and agrees that he will keep and maintain adequate written records of all such Inventions at all stages thereof in the form of notes, sketches, drawings, photographs, printouts, and/or reports relating thereto. These records are and shall remain the property of, and be available to, the Company or its designee(s) at all times. Executive further acknowledges that all such Inventions shall be the exclusive property of the Company. As such, the Executive hereby assigns his entire right, title, and interest in and to all such Inventions to the Company or its designee(s). The Executive will, at the Company's request and expense, execute specific transfers, assignments, documents or other instruments and take such further action as may be considered necessary by the Company at any time during or subsequent to the Executive's employment to obtain and defend any intellectual property rights and vest complete title and ownership to such Inventions to the Company or its designee(s).

(d) The provisions of this Section 5 shall survive any termination of this Agreement.

6. Non-Competition and Non-Disparagement.

(a) The Executive acknowledges and agrees that his services to the Company are special, unique and extraordinary and that in the course of performing such services the Executive will be provided with and have access to and knowledge of Confidential Information and Trade Secrets that would be extremely valuable to competitors of the Company. The Executive further acknowledges and agrees that, due to the unique nature of the Company's business, the loss of any of its clients or the improper use of its Confidential and Proprietary Information could create significant instability and cause substantial and irreparable damage to the Company and therefore the Company has a strong legitimate business interest in protecting the continuity of its business interests and the restrictions herein agreed to by the Executive narrowly and fairly serves such an important and critical business interest of the Company.

(b) The Executive agrees that during his employment and for a period of twelve (12) months following the date of termination of the Executive's employment for any reason whatsoever, he shall not, directly or indirectly, on behalf of himself or any person, firm, partnership, joint venture, corporation or other business entity ("Person"), engage in any business that develops anti-CD20 monoclonal antibodies (the "Competitive Business") within the geographic area in which the Company does business, which is deemed by the parties hereto to be worldwide. Notwithstanding the foregoing, nothing contained in this Section 7(b) shall be deemed to prohibit the Executive from acquiring or holding, solely for investment, publicly traded securities of any corporation, some or all of the activities of which are deemed a Competitive Business so long as such securities do not, in the aggregate, constitute 9.9% or more of any class or series of outstanding securities of such corporation.

(c) The Executive agrees that during his employment and for a period of twelve (12) months following the date of termination of the Executive's employment for any reason whatsoever, he shall not directly or indirectly make any disparaging statement, whether or not true, with respect to the name or reputation of the Company or any of its affiliates, including but not limited to, any officer, director, employee or shareholder of the Company or any of its affiliates (as defined above). Notwithstanding this Section, nothing contained herein shall limit or impair the ability of the Executive to make truthful statements or disclosures that are required by applicable law, regulation, or legal process, including, but not limited to, providing truthful testimony in response to any validly issued subpoena.

(d) In the event that the Executive breaches any provisions of Section 5 or this Section 6 or there is a threatened breach, then, in addition to any other rights which the Company may have, the Company shall (i) be entitled, without the posting of a bond or other security, to seek injunctive relief to enforce the restrictions contained in such Sections and (ii) to the extent permitted by law, have the right to require the Executive to account to the Company all compensation, profits, monies, accruals, increments and other benefits (collectively "**Benefits**") derived or received by the Executive as a result of any transaction constituting a breach of any of the provisions of Sections 5 or 6 and the Executive hereby agrees to account for and pay over such Benefits to the Company. The Company and the Executive agree that any such action for injunctive relief shall be heard in any of the courts set forth in Section 12(c) below, and each of the parties hereto agrees to accept service of process by registered or certified mail and to otherwise consent to the jurisdiction of such courts.

(e) Each of the rights and remedies enumerated in Section 6(d) shall be independent of the others and shall be in addition to and not in lieu of any other rights and remedies available to the Company at law or in equity. If any of the covenants contained in Section 5 or this Section 6, or any part of any of them, is hereafter construed or adjudicated to be invalid or unenforceable, the same shall not affect the remainder of the covenant or covenants or rights or remedies which shall be given full effect without regard to the invalid portions. If any of the covenants contained in Section 5 or this Section 6 is held to be invalid or unenforceable because of the duration of such provision or the area covered thereby, the parties agree that the court or arbitrator making such determination shall have the power to reduce the duration and/or area of such provision and in its reduced form such provision shall then be enforceable. No such holding of invalidity or unenforceability in one jurisdiction shall bar or in any way affect the Company's right to the relief provided in this Section 6 or otherwise in the courts of any other state or jurisdiction within the geographical scope of such covenants as to breaches of such covenants in such other respective states or jurisdictions, such covenants being, for this purpose, severable into diverse and independent covenants.

(f) In the event that an actual proceeding is brought in equity to enforce the provisions of Section 5 or this Section 6, the Executive shall not urge as a defense that there is an adequate remedy at law nor shall the Company be prevented from seeking any other remedies which may be available. The Executive agrees that he shall not raise in any proceeding brought to enforce the provisions of Section 5 or this Section 6 that the covenants contained in such Sections limit his ability to earn a living.

(g) The provisions of this Section 6 shall survive any termination of this Agreement.

7. Representations and Warranties. The Executive hereby represents and warrants to the Company as follows:

(a) Neither the execution or delivery of this Agreement nor the performance by the Executive of his duties and other obligations hereunder violate or will violate any statute, law, determination or award, or conflict with or constitute a default or breach of any covenant or obligation under (whether immediately, upon the giving of notice or lapse of time or both) any prior employment agreement, contract, or other instrument to which the Executive is a party or by which he is bound.

(b) The Executive has the full right, power and legal capacity to enter and deliver this Agreement and to perform his duties and other obligations hereunder. This Agreement constitutes the legal, valid and binding obligation of the Executive enforceable against him in accordance with its terms. No approvals or consents of any persons or entities are required for the Executive to execute and deliver this Agreement or perform his duties and other obligations hereunder.

8. Termination. The Executive's employment hereunder shall be terminated upon the Executive's death and may be terminated as follows:

(a) The Executive's employment hereunder may be terminated by the Board for Cause. Any of the following actions by the Executive shall constitute "Cause":

(i) the Executive's breach of the covenants contained in Sections 5 and 6 hereof, or material breach of any other provision of this Agreement;

(ii) the willful and continual failure or refusal by the Executive to perform his duties under this Agreement (other than by reason of death or Disability (as defined below)), provided such failure or refusal continues for a period of thirty (30) days after receipt of written notice thereof from the Board in reasonable detail of such failure or refusal;

(iii) any action by Executive constituting willful misconduct in respect of the Executive's obligation to the Company that results in material, economic damage to the Company; and

(iv) conviction of a felony.

Notwithstanding the foregoing, the following shall not constitute Cause for the termination of the employment of the Executive or the modification or diminution of any of his authority hereunder: any personal or policy disagreement between the Company and the Executive, or the Executive and any member of the Board ; or any action taken by the Executive in connection with his duties hereunder if the Executive acted in good faith and in a manner he reasonably believed to be in, and not opposed to, the best interest of the Company.

(b) The Executive's employment hereunder may be terminated by the Board due to the Executive's Disability. For purposes of this Agreement, a termination for "Disability" shall occur (i) when the Board has provided a written termination notice to the Executive supported by a written statement from a reputable independent physician, after an appropriate examination, to the effect that the Executive shall have become so physically or mentally incapacitated as to be unable to resume, within the ensuing six (6) months, his employment under this Agreement by reason of physical or mental illness or injury or (ii) upon rendering of a written termination notice by the Board after the Executive has been unable to substantially perform his duties hereunder for ninety (90) or more consecutive days, or more than one hundred and eighty (180) days in any consecutive twelve month period, by reason of any physical or mental illness or injury. For purposes of this Section 8(b), the Executive agrees to make himself available and to cooperate in a reasonable examination by a reputable independent physician retained by the Company.

(c) The Executive's employment hereunder may be terminated by the Executive for Good Reason.

(i) For purposes of this Agreement, "Good Reason" shall mean the occurrence of any of the following without the Executive's express written consent (any of which shall constitute a "Good Reason Condition"):

(A) any material breach of this Agreement by the Company;

(B) a material reduction by the Company of the Executive's duties, responsibilities, or authority as CFO which causes his position with the Company to become of materially less responsibility or authority than his position as of immediately following the Effective Date;

(C) a material reduction in Executive's Base Salary; or

(D) a material change in the geographic location at which the Executive must perform services (which, for purposes of this Agreement, means a relocation of the Company's principal place of business of the Executive outside of the New York City metropolitan area).

(ii) The Executive may terminate his employment for Good Reason for any of the reasons stated above only if (A) the Executive has provided the Company with written notice of the asserted Good Reason Condition within ninety (90) days after its initial existence; (B) the Company fails to cure the condition within thirty (30) days after receiving such written notice; and (C) the Executive terminates employment within two hundred and ten (210) days following Executive's written notice to the Company of the existence of the Good Reason condition.

(d) The Executive's employment may be terminated by the Company without Cause or by the Executive with or without Good Reason on ninety (90) days prior written notice to the other party. The Company may terminate Executive's employment for Cause immediately.

9. Compensation upon Termination.

(a) If, during the Term, the Executive's employment is terminated as a result of his death or Disability, the Company shall pay to the Executive or to the Executive's estate, as applicable, (i) his Base Salary through the date of his termination, (ii) any benefits which Executive is eligible to receive under any Company plan (if disabled), (iii) any expense reimbursement amounts owed the Executive, and (iv) any accrued but unpaid annual bonuses earned by the Executive prior to the date of the Executive's death or termination for Disability. Subject to Section 9(e), any such payments of Base Salary and accrued but unpaid annual bonus shall be made to the Executive or to the Executive's estate, as applicable, within sixty (60) days after his death or termination for Disability. In addition, the Company shall pay to the Executive or the Executive's estate, as applicable, an amount equal to (A) the Target Bonus for the year in which the date of termination occurs, multiplied by (B) a fraction, the numerator of which is the number of days worked by the Executive during the year in which is date of termination occurs and the denominator of which is 365 (the "Prorated Target Bonus"). The Prorated Target Bonus shall be paid to the Executive or his estate in a lump sum in cash within sixty (60) days after his date of termination (or such later date as may be required pursuant to Section 9(e)). In addition, any shares of Annual Restricted Stock Awards outstanding on the date of his termination shall become fully-vested and non-forfeitable as of his date of termination. The vested portion of any stock options outstanding on the date of his termination shall remain exercisable by the Executive for a period of twenty (24) months following the date of his termination (or, if earlier, the normal expiration date of such stock options), and any unvested portion of outstanding stock options shall lapse and be forfeited without consideration as of the date of termination.

(b) If, during the Term, the Executive's employment is terminated by the Board for Cause or by the Executive without Good Reason, or if the Executive's employment terminates upon the expiration of the Term, then the Company shall pay to the Executive his Base Salary through the date of his termination, any expense reimbursement amounts owed the Executive, and any accrued but unpaid annual bonuses earned by the Executive prior to the date of the Executive's termination. The Executive shall have no further entitlement hereunder to any other compensation or benefits from the Company except to the extent otherwise provided by law. Any shares of unvested Annual Restricted Stock Awards outstanding on the date of his termination shall be forfeited without consideration as of the date of termination. The vested portion of any stock options outstanding on the date of his termination shall remain exercisable by the Executive for a period of thirty 30 days following the date of his termination (or, if earlier, the normal expiration date of such stock options), and any unvested portion of outstanding stock options shall lapse and be forfeited without consideration as of the date of termination.

(c) If, during the Term, the Executive's employment is terminated by the Company other than as a result of the Executive's death or Disability and other than for reasons specified in Section 9(b) or 9(d), or if the Executive terminates his employment for Good Reason other than as specified in Section 9(d), then, and, with respect to the payments and benefits described in clauses (i), (ii), (iii), (vi) and (vii) below, only if within forty-five (45) days after the date of termination, the Executive shall have executed a general release of claims and covenant not to sue in the form attached hereto as Exhibit A, and does not revoke such release of claims and covenant not to sue, the Company shall (i) pay to the Executive a lump sum severance payment equal to 0.5 times the sum of his Base Salary and Target Bonus, (ii) continue to provide to the Executive group health benefits for a period of twelve (12) months following the date of termination; (iii) pay the Prorated Target Bonus; (iv) pay any accrued but unpaid annual bonus earned by the Executive; (v) pay any expense reimbursement amounts owed the Executive; (vi) any shares of Annual Restricted Stock Awards outstanding on the date of his termination shall become fully-vested and non-forfeitable as of his date of termination; and (vii) any stock options outstanding on the date of his termination shall become fully-vested and shall remain exercisable by the Executive for a period of twelve (12) months following the date of his termination (or, if earlier, the normal expiration date of such stock options). Subject to Section 9(e), the payments specified in clauses (i), (iii), (iv) and (v) of the preceding sentence shall be paid to the Executive in a lump sum within sixty (60) days following the Executive's date of termination.

(d) If, during the Term, the Executive's employment is terminated upon or following the occurrence of a Change in Control (as defined below) (X) by the Company (or its successor) other than as a result of the Executive's death or Disability and other than for reasons specified in Section 10(b), or (Y) by the Executive for Good Reason, then, provided that within forty-five (45) days after the date of termination, the Executive shall have executed a general release of claims and covenant not to sue in the form attached hereto as Exhibit A, and does not revoke such release of claims and covenant not to sue, the Company (or its successor, as applicable) shall (i) pay to the Executive a lump sum severance payment equal to one (1) times the sum of his Base Salary and Target Bonus; (ii) continue to provide to the Executive group health benefits for a period of twelve (12) months following the Executive's date of termination; (iii) pay the Prorated Target Bonus; (iv) pay any accrued but unpaid annual bonus earned by the Executive prior to the date of his termination; (v) pay any expense reimbursement amounts owed the Executive; (vi) any shares Annual Restricted Stock Awards outstanding on the date of his termination shall become fully-vested and non-forfeitable as of the date of his termination; and (vii) any stock options outstanding on the date of his termination shall become fully-vested and, provided that such stock options are not cancelled and cashed-out in connection with the Change in Control (as defined below), shall remain exercisable by the Executive for twelve (12) months following the date of his termination (or, if earlier, the normal expiration date of such stock options). Subject to Section 10(e), the payments specified in clauses (i), (iii), (iv) and (v) shall be paid to the Executive in a lump sum within sixty (60) days following the Executive's date of termination. For purposes of this Agreement, "Change in Control" means and includes the occurrence of any one of the following events but shall specifically exclude a Public Offering (as defined herein): (i) the acquisition, directly or indirectly, following the date hereof by any person (as such term is defined in Section 13(d) and 14(d)(2) of the Securities Exchange Act of 1934, as amended), in one transaction or a series of related transactions, of securities of the Company representing in excess of fifty percent (50%) or more of the combined voting power of the Company's then outstanding securities if such person or his or its affiliate(s) do not own in excess of fifty percent (50%) of such voting power on the Effective Date, but excluding an acquisition where the stockholders holding fifty percent (50%) of the voting power of the Company's then outstanding securities continue to hold fifty percent (50%) or more of the voting power of an entity that holds fifty percent (50%) or more of the voting power of the Company's then outstanding voting securities, or (ii) the future disposition by the Company (whether direct or indirect, by sale of assets or stock, merger, consolidation or otherwise) of all or substantially all of its business and/or assets in one transaction or series of related transactions (other than a merger effected exclusively for the purpose of changing the domicile of the Company). For purposes of this Agreement, "Public Offering" means a public offering of any class or series of the Company's equity securities pursuant to a registration statement filed by the Company under the Securities Act of 1933 Act, as amended.

(e) Notwithstanding anything to the contrary in this Agreement, the following shall apply to any benefits provided under this Agreement that constitute “deferred compensation” within the meaning of Section 409A of the Internal Revenue Code of 1986, as amended (the “Code”) and the regulations and other guidance thereunder and any state law of similar effect (collectively “Section 409A”):

(i) Any payment of such benefits shall not commence in connection with the Executive’s termination of employment unless and until the Executive has also incurred a “separation from service,” (as defined in Treasury Regulations Section 1.409A-1(h)) (“Separation from Service”) or such termination of employment is due to the Executive’s death, unless the Company reasonably determines that such amounts may be provided to the Executive without causing the Executive to incur the adverse personal tax consequences under Section 409A.

(ii) It is intended that (A) each installment of any such benefits be regarded as a separate “payment” for purposes of Treasury Regulations Section 1.409A-2(b)(2)(i), (B) all payments of any such benefits satisfy, to the greatest extent possible, the exemptions from the application of Section 409A provided under Treasury Regulations Sections 1.409A-1(b)(4) and 1.409A-1(b)(9)(iii), and (C) any such benefits consisting of premiums payable under the Consolidated Omnibus Budget Reconciliation Act of 1985 (“COBRA”) also satisfy, to the greatest extent possible, the exemption from the application of Section 409A provided under Treasury Regulations Section 1.409A-1(b)(9)(v). However, if the Company determines that any such benefits constitute “deferred compensation” under Section 409A and the Executive is a “specified employee” of the Company, as such term is defined in Section 409A(a)(2)(B)(i), then, solely to the extent necessary to avoid the imposition of the adverse personal tax consequences under Section 409A, (i) the timing of such benefit payments shall be delayed until the earlier of (a) the date that is six (6) months and one (1) day after the Executive’s Separation from Service and (b) the date of the Executive’s death (such applicable date, the “Delayed Initial Payment Date”), and (ii) the Company shall (a) pay the Executive a lump sum amount equal to the sum of the benefit payments that the Executive would otherwise have received through the Delayed Initial Payment Date if the commencement of the payment of the benefits had not been delayed pursuant to this paragraph and (b) commence paying the balance, if any, of the benefits in accordance with the applicable payment schedule.

(iii) Whenever in this Agreement a payment or benefit is conditioned on the Executive’s execution of a release of claims and covenant not to sue, the Company shall provide such release to the Executive promptly following the date of termination, and such release and covenant not to sue must be executed and all revocation periods shall have expired in accordance with terms set forth in the release, but in no case later than sixty (60) days after the date of termination; failing which such payment or benefit shall be forfeited. If such payment or benefit constitutes “deferred compensation” within the meaning of Section 409A of the Code, then, subject to subsection (ii) above, such payment or benefit (including any installment payments) that would have otherwise been payable during such 60-day period shall be accumulated and paid on the 60th day after the date of termination provided such release shall have been executed and such revocation periods shall have expired. If such payment or benefit is exempt from Section 409A of the Code, the Company may elect to make or commence payment at any time during such 60-day period.

(iv) Notwithstanding anything in this Agreement to the contrary, any expense reimbursement or benefit provided pursuant to Section 9 shall be subject to the following: (i) the amount of any expense reimbursement or benefit provided during the Executive's taxable year shall not affect any expenses eligible for reimbursement or benefit to be provided in any other taxable year; (ii) the reimbursement of any eligible expense shall be made no later than the last day of the Executive's taxable year that immediately follows the taxable year in which the expense was incurred; and (iii) the right to any such expense reimbursement or benefit shall not be subject to liquidation or exchange for another benefit.

(f) This Section 9 sets forth the only obligations of the Company with respect to the termination of the Executive's employment with the Company, and the Executive acknowledges that, upon the termination of his employment, he shall not be entitled to any payments or benefits which are not explicitly provided in Section 9.

(g) The obligations of the Company that arise under this Section 9 shall survive the expiration or earlier termination of this Agreement.

10. Mandatory Reduction of Payments in Certain Events.

(a) Anything in this Agreement to the contrary notwithstanding, in the event it shall be determined that any payment or distribution by the Company to or for the benefit of Executive (whether paid or payable or distributed or distributable pursuant to the terms of this Agreement or otherwise) (a "Payment") would be subject to the excise tax imposed by Section 4999 of the Code (the "Excise Tax"), then, prior to the making of any Payment to Executive, a calculation shall be made comparing (i) the net benefit to Executive of the Payment after payment of the Excise Tax, to (ii) the net benefit to Executive if the Payment had been limited to the extent necessary to avoid being subject to the Excise Tax. If the amount calculated under (i) above is less than the amount calculated under (ii) above, then the Payment shall be limited to the extent necessary to avoid being subject to the Excise Tax (the "Reduced Amount"). The reduction of the Payments due hereunder, if applicable, shall be made by first reducing cash Payments and then, to the extent necessary, reducing those Payments having the next highest ratio of Parachute Value to actual present value of such Payments as of the date of the change of control, as determined by the Determination Firm (as defined in Section 10(b) below). For purposes of this Section 10, present value shall be determined in accordance with Section 280G(d)(4) of the Code. For purposes of this Section 10, the "Parachute Value" of a Payment means the present value as of the date of the change of control of the portion of such Payment that constitutes a "parachute payment" under Section 280G(b)(2) of the Code, as determined by the Determination Firm for purposes of determining whether and to what extent the Excise Tax will apply to such Payment.



(b) The determination of whether an Excise Tax would be imposed, the amount of such Excise Tax, and the calculation of the amounts referred to Section 10(a)(i) and (ii) above shall be made by an independent, nationally recognized accounting firm or compensation consulting firm mutually acceptable to the Company and Executive (the “Determination Firm”) which shall provide detailed supporting calculations. Any determination by the Determination Firm shall be binding upon the Company and Executive. As a result of the uncertainty in the application of Section 4999 of the Code at the time of the initial determination by the Determination Firm hereunder, it is possible that Payments which Executive was entitled to, but did not receive pursuant to Section 10(a), could have been made without the imposition of the Excise Tax (“Underpayment”). In such event, the Determination Firm shall determine the amount of the Underpayment that has occurred and any such Underpayment shall be promptly paid by the Company to or for the benefit of Executive but no later than March 15 of the year after the year in which the Underpayment is determined to exist, which is when the legally binding right to such Underpayment arises.

(c) In the event that the provisions of Code Section 280G and 4999 or any successor provisions are repealed without succession, this Section 10 shall be of no further force or effect.

11. Indemnification. The Company shall defend and indemnify the Executive in his capacity CFO of the Company to the fullest extent permitted under to the Delaware General Corporate Law (the “DGCL”). The Company shall also establish a policy for indemnifying its officers and directors, including but not limited to the Executive, for all actions permitted under the DGCL taken in good faith pursuit of their duties for the Company, including but not limited to the obtaining of an appropriate level of Directors and Officers Liability coverage and including such provisions in the Company’s by-laws or certificate of incorporation, as applicable and customary. The rights to indemnification shall survive any termination of this Agreement.

12. Miscellaneous.

(a) This Agreement shall be governed by, and construed and interpreted in accordance with, the laws of the State of New York, without giving effect to its principles of conflicts of laws.

(b) Executive and Company agree that any and all controversies or claims (whether contract, tort or statutory) between Executive and the Company arising out of Executive’s employment, the termination of that employment, and any agreements previously or hereafter entered into by Executive and Company in connection with such employment relationship, that could have been filed in a court of law (or an administrative agency) shall be settled by final and binding arbitration. The claims covered by this Agreement include, but are not limited to, claims for wrongful termination, wages or other compensation due, breach of contract, tort, discrimination or harassment (including race, sex, religion, national origin, age, marital status, medical condition or disability), violation of any public policies, and claims for violation of federal, state or other governmental law, statute, regulation or ordinance.

(c) The arbitration shall be conducted in accordance with the National Rules for the Resolution of Employment Disputes of the American Arbitration Association then in effect before a single arbitrator mutually selected by the Executive and the Company. For the purpose of any judicial proceeding to enforce such award or incidental to such arbitration or to compel arbitration and for purposes of Sections 5 and 6 hereof, the parties hereby submit to the non-exclusive jurisdiction of the state or federal courts within the State of New York, as appropriate, and agree that service of process in such arbitration or court proceedings shall be satisfactorily made upon it if sent by registered mail addressed to it at the address referred to below in Section 12(m).

(d) The Arbitrator shall be empowered to award any party any remedy at law or in equity that the prevailing party would otherwise have been entitled to had the matter been litigated or pursued in a civil court or administrative forum including, but not limited to, general, special, and punitive damages, and injunctive relief. However, the Arbitrator's authority to award any remedy is subject to whatever limitations, if any, exist in the applicable law on such remedies. Any award pursuant to arbitration hereunder shall be included in a written decision that will state the legal and factual basis for the award and shall set forth the basis for calculating any damages award. The arbitrator's award, order or judgment shall be deemed final and binding upon the parties, except to the extent that it is shown to be violative of the law.

(e) A demand for arbitration must be submitted within the limitations period that would be applicable in court. If either party does not submit and serve a written demand for arbitration within the applicable statute of limitations, such failure shall constitute an absolute bar to the institution of any proceedings in any forum, and shall constitute a waiver of any rights regarding that claim.

(f) Neither party nor the arbitrator may disclose the existence, content or results of any arbitrations under this Agreement without the prior written consent of all parties hereto.

(g) Pending such resolution of any claim, the Executive shall be entitled to continue to receive all payments and benefits due under this Agreement or otherwise, unless the arbitration panel determines otherwise. Judgment on the arbitration award may be entered by any court of competent jurisdiction.

(h) Nothing in this Agreement shall prevent the parties from agreeing voluntarily after a claim or controversy has arisen to submit such claim or controversy to mediation or other informal settlement process. However, if the dispute is not resolved through mediation or such other process, it shall be submitted to binding arbitration pursuant to this Agreement.

(i) This Agreement shall be binding upon and inure to the benefit of the parties hereto, and their respective heirs, legal representatives, successors and assigns.

(j) This Agreement, and the Executive's rights and obligations hereunder, may not be assigned by the Executive. The Company may assign its rights, together with its obligations, hereunder in connection with any sale, transfer or other disposition of all or substantially all of its business or assets.

(k) This Agreement cannot be amended orally, or by any course of conduct or dealing, but only by a written agreement signed by the parties hereto.

(l) The failure of either party to insist upon the strict performance of any of the terms, conditions and provisions of this Agreement shall not be construed as a waiver or relinquishment of future compliance therewith, and such terms, conditions and provisions shall remain in full force and effect. No waiver of any term or condition of this Agreement on the part of either party shall be effective for any purpose whatsoever unless such waiver is in writing and signed by such party.

(m) All notices, requests, consents and other communications, required or permitted to be given hereunder, shall be in writing and shall be delivered personally or by an overnight courier service or sent by registered or certified mail, postage prepaid, return receipt requested, to the parties at the addresses set forth on the first page of this Agreement, and shall be deemed given when so delivered personally or by overnight courier or when actually received if sent by registered or certified mail. Each party may designate another address, for receipt of notices hereunder by giving notice to the other party in accordance with this paragraph (m) of this Section 12.

(n) This Agreement sets forth the entire agreement and understanding of the parties relating to the subject matter hereof, and supersedes all prior agreements, arrangements and understandings, written or oral, relating to the subject matter hereof. No representation, promise or inducement has been made by either party that is not embodied in this Agreement, and neither party shall be bound by or liable for any alleged representation, promise or inducement not so set forth.

(o) As used in this Agreement, "affiliate" of a specified Person shall mean and include any Person controlling, controlled by or under common control with the specified Person.

(p) The section headings contained herein are for reference purposes only and shall not in any way affect the meaning or interpretation of this Agreement.

(q) This Agreement may be executed in any number of counterparts, each of which shall constitute an original, but all of which together shall constitute one and the same instrument.

(r) As used in this Agreement, the masculine, feminine or neuter gender, and the singular or plural, shall be deemed to include the others whenever and wherever the context so requires. Additionally, unless the context requires otherwise, "or" is not exclusive.

*Remainder of Page Intentionally Left Blank; Signature Page Follows*

IN WITNESS WHEREOF, the parties hereto have executed this Agreement, which shall be deemed effective as of the Commencement Date set forth herein.

TG THERAPEUTICS, INC.

By: /s/ Michael S. Weiss  
Name: Michael S. Weiss  
Title: Chief Executive Officer and President

SEAN A. POWER

/s/ Sean A. Power

RESTRICTED STOCK SUBSCRIPTION AGREEMENT

THIS RESTRICTED STOCK SUBSCRIPTION AGREEMENT ("Agreement") is dated as of November 15, 2011, by and between the undersigned (the "Purchaser") and TG Therapeutics, Inc., a Delaware corporation with a place of business at 787 Seventh Avenue, 48th Floor, New York, NY 10019 (the "Corporation" or "Company").

RECITALS

- A. WHEREAS, the Corporation desires to sell to Purchaser shares of Common Stock, par value \$.001 per share, of the Corporation (which class of shares is referred to herein as "Common Stock"), and Purchaser desires to purchase these shares, upon the terms and conditions herein specified; and
- B. WHEREAS, Purchaser is willing to subject the Stock (as defined herein) to the restrictions contained herein.
- C. WHEREAS, in connection with this Agreement, Purchaser and the Company have entered into an Employment Agreement dated as of November 1, 2011 (the "Employment Agreement").

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing recitals and of the mutual promises herein contained, the parties hereby agree as follows:

1. Issuance and Acquisition of Stock.

(a) Immediately after the execution of this Agreement by the parties, the Corporation shall issue to the Purchaser, and the Purchaser shall acquire from the Corporation, the number of shares of Common Stock listed beside the Purchaser's name on the signature page hereto (the "Stock") for the total purchase price listed below the Purchaser's name on the signature page hereto (the "Purchase Price").

(b) Within sixty days of execution of this Agreement, the Purchaser shall make payment for the Stock by delivering to the Corporation a check payable to the Corporation in the amount of the Purchase Price. Within ten business days after receipt by the Corporation of the Purchase Price, the Corporation shall deliver to the Purchaser a certificate or certificates evidencing the Stock, registered in the name of the Purchaser.

(c) The Stock will be subject to a repurchase right in favor of the Company as set forth in Section 2 hereof.

(d) The number of shares of Stock listed in Section 2(b) shall vest the day following the date on which the Repurchase Option lapses (as provided in Section 2(b) below).

2. Repurchase Option.

(a) On the date that the Purchaser Terminates Service (as defined in subsection (c)(1) below), the Company shall have the right to repurchase from the Purchaser all, but not less than all, of the Stock (the "Repurchase Option"). The Repurchase Option may be exercised within the 30-day period immediately following the date that the Purchaser Terminates Service (the "Repurchase Period"). The Repurchase Option shall be exercised by the Company by giving the Purchaser written notice on or before the last day of the Repurchase Period of its intention to exercise the Repurchase Option, and, together with such notice, tendering to the Purchaser the Repurchase Price (as defined in subsection (c)(2) below).

(b) The Repurchase Option shall lapse as provided in the schedule below, or, as to all of the Stock, upon the earlier occurrence of a Change in Control (as defined in subsection (c)(4) hereof).

<u>Number of Shares</u>	<u>Date on which Repurchase Option Lapses</u>
25,000	November 15, 2012
25,000	November 15, 2013
25,000	November 15, 2014
37,500	The date on which the Company achieves a fully-diluted Market Capitalization (as defined in subsection (c)(5) below) of One Hundred Million Dollars (\$100,000,000)
37,500	The date on which the Company achieves a fully-diluted Market Capitalization of Two Hundred Million Dollars (\$200,000,000)

(c) (1) “Terminates Service” means the date that the Purchaser is no longer providing services to the Company as an employee, consultant or director.

(2) “Repurchase Price” shall be equal to the Fair Market Value of the Stock on the date that the Repurchase Option is exercised; provided, however, that if the Purchaser Terminates Service without Good Reason (as defined in subsection (c)(6) hereof), the Repurchase Price shall be \$0.001 per share.

(3) “Fair Market Value” shall be determined by an independent valuation firm hired by the Company, the choice of which must be reasonably agreeable to the Purchaser.

(4) “Change of Control” means and includes the occurrence of any one of the following events but shall specifically exclude a Public Offering (as defined herein): (i) the acquisition, directly or indirectly, following the date hereof by any person (as such term is defined in Section 13(d) and 14(d)(2) of the Securities Exchange Act of 1934, as amended), in one transaction or a series of related transactions, of securities of the Company representing in excess of fifty percent (50%) or more of the combined voting power of the Company’s then outstanding securities if such person or his or its affiliate(s) do not own in excess of fifty percent (50%) of such voting power on November 15, 2011, but excluding an acquisition where the stockholders holding fifty percent (50%) of the voting power of the Company’s then outstanding securities continue to hold fifty percent (50%) or more of the voting power of an entity that holds fifty percent (50%) or more of the voting power of the Company’s then outstanding voting securities, or (ii) the future disposition by the Company (whether direct or indirect, by sale of assets or stock, merger, consolidation or otherwise) of all or substantially all of its business and/or assets in one transaction or series of related transactions (other than a merger effected exclusively for the purpose of changing the domicile of the Company). For purposes of this Agreement, “Public Offering” means a public offering of any class or series of the Company’s equity securities pursuant to a registration statement filed by the Company under the Securities Act of 1933 Act, as amended.

(5) “Market Capitalization” shall be determined by multiplying the total shares of the Company’s Common Stock that are outstanding at that time (including Common Stock issuable upon conversion, exchange or exercise of any derivative security, including without limitation, options, warrants, convertible equity or debt or restricted equity) by the last reported closing price of the Company’s Common Stock on a nationally recognized exchange or in the over-the-counter market.

(6) “Good Reason” shall mean occurrence of any of the following without the Purchaser’s express written consent (any of which shall constitute a “Good Reason Condition”): (i) the failure to elect or reelect Purchaser as Chairman of the Board, which constitutes a material reduction by the Company of the Purchaser’s duties, responsibilities, or authority as of the effective date of the Employment Agreement; (ii) any material breach of the Employment Agreement by the Company; (iii) a material reduction by the Company of the Purchaser’s duties, responsibilities, or authority as Executive Chairman, CEO and President and Chairman of the Board which causes his position with the Company to become of less responsibility or authority than his position as of immediately following the effective date of the Employment Agreement; (iv) a material reduction in Purchaser’s base salary; or (v) a material change in the geographic location at which the Purchaser must perform services (which, for purposes of this Agreement, means a relocation of the Company’s principal place of business of the Purchaser outside of the New York City metropolitan area). The Purchaser may terminate his employment for Good Reason for any of the preceding reasons only if (A) the Purchaser has provided the Company with written notice of the asserted Good Reason Condition within ninety (90) days after its initial existence; (B) the Company fails to cure the condition within thirty (30) days after receiving such written notice; and (C) the Purchaser terminates employment within one hundred and eighty-five (185) days following the Purchaser’s written notice to the Company of the existence of the Good Reason condition.

(d) Any repurchase of the Stock by the Company shall take place at the principal executive offices of the Company, or at such other location designated by the Company, at the time and date set by the Company. Such sale shall be effected by the Purchaser’s delivery to the Company of a certificate or certificates evidencing the repurchased Stock, duly endorsed for transfer to the Company and free and clear of any and all liens, charges and encumbrances (except for restrictions under applicable securities laws) against payment to the Purchaser by the Company of the Repurchase Price by check for the repurchased Stock (which check may be delivered by mail). Upon payment of the Repurchase Price, the Company shall become the legal and beneficial owner of the Shares being repurchased and all rights and interests therein or relating thereto, and the Company shall have the right to retain and transfer to its own name the number of Shares being repurchased by the Company.

3. Violation Of Transfer Provisions. The Corporation shall not be required (i) to transfer on its books any shares of Stock which shall have been sold, transferred, assigned or pledged in violation of any of the provisions of this Agreement or (ii) to treat as owner of such shares or to accord the right to vote as such owner or to pay dividends to any such transferee to whom such shares shall have been so sold, transferred, assigned or pledged.

4. Securities Laws. The Purchaser represents and warrants to and covenants with the Corporation as follows:



(a) The Stock will be acquired by the Purchaser with the Purchaser's own funds for investment purposes and for the Purchaser's own account, not as a nominee or agent for any other person, firm or corporation, and not with a view to the sale or distribution of all or any part thereof, and the Purchaser has no present intention of selling, granting any participation in, or otherwise distributing, any or all of the Stock. The Purchaser does not have any contract, undertaking, agreement or arrangement with any person, firm or corporation to sell, transfer or grant any participation to any person, firm or corporation with respect to any or all of the Stock.

(b) The Purchaser understands that the Stock will not be registered under the Securities Act of 1933, as amended (the "Securities Act"), and that the Stock is being issued and sold to the Purchaser based upon an exemption from registration predicated in part on the accuracy and completeness of the Purchaser's representations and warranties appearing herein. The Purchaser agrees to hold the Corporation and its directors, officers, employees, controlling persons and agents and their respective heirs, representatives, successors and assigns harmless and to indemnify them against all liabilities, costs and expenses incurred by them as a result of, (i) any misrepresentation, omission or untrue statement of a material fact made by the Purchaser contained in this Agreement or (ii) any sale or distribution by the Purchaser in violation of the Act or any applicable state securities or "blue sky" laws.

(c) The Purchaser hereby acknowledges that the issuance of the Stock has not been reviewed by the United States Securities and Exchange Commission (the "SEC" or the "Commission") or any state regulatory authority, since the issuance is intended to be exempt from the registration requirements of Section 5 of the Act pursuant to Regulation D promulgated under the Act. The Purchaser agrees that in no event will the Purchaser sell, transfer, assign or pledge all or any part of the Stock or any interest therein, unless and until (i) the Purchaser shall have furnished the Corporation with an opinion of counsel satisfactory in form and content to the Corporation to the effect that (A) such disposition will not require registration of the Stock under the Securities Act or compliance with applicable state securities laws, or (B) appropriate action necessary for compliance with the Securities Act and applicable state securities laws has been taken, or the Corporation shall have waived, expressly and in writing, its right under clause (i) of this subsection, (ii) the proposed transferee of the Stock shall have provided the Corporation with a written agreement or undertaking by which such transferee agrees to be bound by all terms, conditions and limitations of this Agreement applicable to such transferee's transferor as if such transferee were a party hereto. The requirement of subparagraph (ii) shall not apply to any transfer (A) pursuant to an offering registered under the Securities Act, (B) pursuant to Rule 144 under the Securities Act or (C) effected in a market transaction otherwise exempt from registration under the Securities Act. Notwithstanding the foregoing (i) above, Purchaser can transfer to a family member, to a trust for benefit of a family member or to a limited partnership or corporation the beneficial owners of which are all family members.

(d) The Purchaser recognizes that the purchase of the Stock involves a high degree of risk including, but not limited to, the following: (i) the Corporation is a development stage business with limited operating history and requires substantial funds in addition to the proceeds of this investment; (ii) an investment in the Corporation is highly speculative, and only investors who can afford the loss of their entire investment should consider investing in the Corporation and the Stock; (iii) the Purchaser may not be able to liquidate his investment; (iv) transferability of the Stock is extremely limited; (v) in the event of a disposition, the Purchaser could sustain the loss of his entire investment and (vi) the Corporation has not paid any dividends since inception and does not anticipate the payment of dividends in the foreseeable future.

(e) The Purchaser is able to fend for itself in connection with the transactions contemplated by this Agreement, has such knowledge and experience in financial and business matters as to be capable of evaluating the merits and risks of its investment in the Corporation, as the ability to bear the economic risks of its investment for an indefinite period of time and can afford a complete loss of its investment, has had the opportunity prior to the Purchaser's purchase of the Stock to ask questions of and receive answers from representatives of the Corporation concerning the finances, operations and business of the Corporation. The Purchaser is not relying upon any statement, promise or assurance of any investor in the Corporation (or any representative of any such investor) in arriving at the Purchaser's decision to purchase the Stock, and has not otherwise been induced to purchase the Stock by any such investor (or any representative of any such investor), and the Purchaser has decided to purchase the Stock based upon the Purchaser's own analysis of the merits and risks of investing in the Corporation without the intervention or assistance of any other person, firm or corporation (or any representative of the foregoing). The Purchaser hereby represents that the Purchaser has been furnished by the Corporation during the course of this investment with all information regarding the Corporation which the Purchaser has requested or desired to know, has been afforded the opportunity to ask questions of and receive answers from duly authorized officers or other representatives of the Corporation concerning the terms and conditions of the investment and has received any additional information which the Purchaser has requested. The Purchaser represents that the Stock was not offered or sold to it by means of any form of general solicitation or general advertising, and in connection therewith the Purchaser did not (A) receive or review any advertisement, article, notice or other communication published in a newspaper or magazine or similar media or broadcast over television or radio whether closed circuit, or generally available; or (B) attend any seminar meeting or industry investor conference whose attendees were invited by any general solicitation or general advertising.

(f) The Purchaser understands that there is no public market for the Stock and that no market may develop for any such securities. The Purchaser understands that even if a public market develops for the Stock, restrictions on sale contained in this Agreement and under the Act still may prohibit resale. The Purchaser understands and hereby acknowledges that the Corporation is under no obligation to register any of the Stock other than as contained in paragraph 6. Except as otherwise provided in this Agreement, the Purchaser understands and acknowledges that (i) the Purchaser will not be permitted to sell, transfer, assign or pledge the Stock until it is registered under the Securities Act or an exemption from the registration and prospectus delivery requirements of the Securities Act is available to the Purchaser, and that there is no assurance that such an exemption from registration will ever be available or that the Purchaser will ever be able to sell any of the Stock, (ii) the share certificate(s) representing the Stock will be stamped with the legends specified in paragraph 3(g) hereof and (iii) the Corporation will make a notation in its records of the aforementioned restriction and transfer legends and that, in order to ensure compliance with the restrictions referred to herein, the Corporation may issue appropriate "stop transfer" instructions to its transfer agent, if any, and that, if the Corporation transfers its own securities, it may make appropriate notations to the same effect in its own records.

(g) All certificates representing the Stock and, until such time as the Stock is sold in an offering which is registered under the Securities Act or the Corporation shall have received an opinion of counsel satisfactory in form and content to the Corporation that such registration is not required in connection with a resale (or subsequent resale) of the Stock, all certificates issued in transfer thereof or substitution therefor, shall, where applicable, have endorsed thereon the following (or substantially equivalent) legends:

- (i) THE SECURITIES REPRESENTED BY THIS CERTIFICATE MAY NOT BE OFFERED FOR SALE, TRANSFERRED, SOLD, ASSIGNED, PLEDGED, HYPOTHECATED OR OTHERWISE ENCUMBERED OR DISPOSED OF (A "TRANSFER") UNLESS SUCH TRANSFER COMPLIES WITH THE PROVISIONS OF THIS AGREEMENT .. THE SECURITIES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "ACT"), OR UNDER ANY STATE SECURITIES OR "BLUE SKY" LAWS. ACCORDINGLY, NO TRANSFER OF THE SECURITIES REPRESENTED BY THIS CERTIFICATE MAY BE MADE EXCEPT IN ACCORDANCE WITH THE AGREEMENT AND (A) PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT OR AMENDMENT THERETO UNDER THE ACT OR (B) PURSUANT TO AN EXEMPTION FROM REGISTRATION UNDER THE ACT AND UNDER ANY APPLICABLE STATE SECURITIES OR "BLUE SKY" LAWS.

(ii) THE SECURITIES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO A REPURCHASE RIGHT IN FAVOR OF THE COMPANY AS OUTLINED IN THE STOCK PURCHASE AGREEMENT.

(iii) Any legend required to be placed thereon by any applicable state securities law.

(h) The Purchaser's principal residence is as set forth on the signature page hereof.

(i) The Purchaser represents that the Purchaser has full power and authority (corporate, statutory and otherwise) to execute and deliver this Agreement and to purchase the Stock. This Agreement constitutes the legal, valid and binding obligation of the Purchaser, enforceable against the Purchaser in accordance with its terms.

(j) The Purchaser represents and warrants that it has not engaged, consented to nor authorized any broker, finder or intermediary to act on its behalf, directly or indirectly, as a broker, finder or intermediary in connection with the transactions contemplated by this Agreement. The Purchaser shall indemnify and hold harmless the Corporation from and against all fees, commissions or other payments owing to any such person or firm acting on behalf of such Purchaser hereunder.

5      State Securities Laws Representations.

The Purchaser hereby acknowledges that it has been advised and that it understands the following:

IN MAKING AN INVESTMENT DECISION A PURCHASER MUST RELY ON ITS OWN EXAMINATION OF THE COMPANY AND THE TERMS OF THE OFFERING, INCLUDING THE MERITS AND RISKS INVOLVED. THESE SECURITIES HAVE NOT BEEN RECOMMENDED BY ANY FEDERAL OR STATE SECURITIES COMMISSION OR REGULATORY AUTHORITY. FURTHERMORE, THE FOREGOING AUTHORITIES HAVE NOT CONFIRMED THE ACCURACY OR DETERMINED THE ADEQUACY OF THIS DOCUMENT. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

THESE SECURITIES ARE SUBJECT TO RESTRICTIONS ON TRANSFERABILITY AND RESALE AND MAY NOT BE TRANSFERRED OR RESOLD EXCEPT AS PERMITTED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, AND THE APPLICABLE STATE SECURITIES LAWS, PURSUANT TO REGISTRATION OR EXEMPTION THEREFROM. PURCHASERS SHOULD BE AWARE THAT THEY MAY BE REQUIRED TO BEAR THE FINANCIAL RISKS OF THIS INVESTMENT FOR AN INDEFINITE PERIOD OF TIME.

6.      Representations by, and Covenants of, the Corporation. The Corporation represents, warrants and, where applicable, covenants to the Purchaser as of the date hereof:

(a)      The Corporation is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware and has the corporate power to conduct the business which it proposes to conduct;

(b)      The execution, delivery and performance of this Agreement by the Corporation will have been duly approved by the Board of Directors of the Corporation and all other actions required to authorize and effect the offer and sale of the shares of Common Stock will have been duly taken and approved;

(c)      The shares of Common Stock purchased pursuant hereto have been duly and validly authorized and when issued against payment of the purchase price therefor in accordance with the terms hereof, will be duly and validly issued, fully paid and non-assessable;

(d)      The Corporation is not in any material respect in violation of or in default in any material respect under, nor will the execution and delivery of this Agreement, or the issuance of the Common Stock and the incurrence of the obligations herein set forth and the consummation of the transactions herein contemplated, result in a material violation of, or constitute a material default under, the Restated Certificate of Incorporation or the By-Laws of the Corporation.

7. "Piggy-back" Registration Rights.

(a) If (but without any obligation to do so) at anytime following the date which is 180 days after the IPO (as defined below) or the first date which the Corporation is publicly traded, the Corporation proposes to register any of its stock or other securities under the Act in connection with the public offering of such securities solely for cash (other than a registration statement on Form S-4 or S-8 or any other form which does not include substantially the same information as would be required in a form for the general registration of securities), the Corporation shall, at such time, promptly give each Purchaser written notice of such registration. Upon the written request of each Purchaser given within ten (10) days after mailing of such notice by the Corporation in accordance with paragraph 8(b), the Corporation shall, subject to the limitations set forth in paragraph 6(b) below, include in the Corporation's registration statement under the Act all of the Common Stock that each such Purchaser has requested to be registered; provided, however, that nothing in this Section 6(a) shall prevent the Corporation from at any time abandoning or delaying any such registration without obligation to any Purchaser.

(b) Notwithstanding the provisions of paragraph 6(a) above, in connection with any offering involving an underwriting of shares of the Corporation's capital stock, the Corporation shall not be required under paragraph 6(a) to include any of the Purchasers' Stock in such underwriting unless they accept the terms of the underwriting as agreed upon between the Corporation and the underwriters selected by it (or by other persons entitled to select the underwriters), and then only in such quantity as the underwriters determine in their sole discretion will not jeopardize the success of the offering by the Corporation. If the total amount of Stock requested by Purchaser (together with other potential selling stockholders) to be included in such offering exceeds the amount of securities that the underwriters determine in their sole discretion is compatible with the success of the offering, then the Corporation shall be required to include in the offering only that number of such securities which the underwriters determine in their sole discretion will not jeopardize the success of the offering (the securities so included to be apportioned pro rata among the selling stockholders according to the total amount of securities entitled to be included therein owned by each selling stockholder or in such other proportions as shall mutually be agreed to by such selling stockholders). In apportioning the securities to be included in the offering, the Corporation shall have the first right to include 100% of its desired shares in the offering without cut-backs.

8. Confidential Information.

Purchaser agrees to hold in strictest confidence, and not to use, except for the benefit of the Company or its shareholders, or to disclose to any person, firm or corporation without written authorization of the Board of Directors of the Company, any Confidential Information of the Company. For purposes of this Agreement, "Confidential Information" means any Company proprietary information, technical data, trade secrets or know-how, including, but not limited to, research, product plans, products, services, customer lists and customers, markets, software developments, inventions, processes, formulas, technology, designs, drawings, engineering, hardware configuration information, marketing, finances, investors or other business information disclosed to Purchaser by the Company either directly or indirectly in writing, orally or by drawings or observation of parts or equipment. Confidential Information does not include any of the foregoing items which (i) has become publicly known and made generally available through no wrongful act of Purchaser or of others who were under confidentiality obligations as to the item or items involved, (ii) was within the Purchaser's possession prior to its being furnished to the Purchaser by or on behalf of the Company, provided that the source of such information was not known by the Purchaser to be bound by a confidentiality agreement with or other contractual, legal or fiduciary obligation of confidentiality to the Company, (iii) is or becomes available to the Purchaser on a non-confidential basis from a source other than the Company or any of its representatives, provided that such source was not known by the Purchaser to be bound by a confidentiality agreement with or other contractual, legal or fiduciary obligation of confidentiality to the Company or any other party with respect to such information, (iv) is independently developed by the Purchaser without use of Confidential Information, (v) is disclosed under operation of law, provided that, to the extent legally possible, Purchaser shall have given the Company reasonable notice and opportunity to oppose such disclosure or (vi) is disclosed by the Purchaser or its representatives with the Company's prior written approval.

9. General Provisions.

(a) No Assignments. The Purchaser shall not transfer, assign or encumber any of its rights, privileges, duties or obligations under this Agreement without the prior written consent of the Corporation, and any attempt to so transfer, assign or encumber shall be void.

(b) Notices. All notices and other communications which are required or permitted to be given pursuant to the terms of this Agreement shall be in writing and shall be sufficiently given (i) if personally delivered, (ii) if sent by telex or facsimile, provided that "answer-back" confirmation is received by the sender or (iii) upon receipt, if sent by registered or certified mail, postage paid return receipt requested in any case addressed as follows:

- (i) If to the Corporation at the address first written above, attention CEO.
- (ii) If to the Purchaser, to the address set forth on the signature page of this Agreement.

The address of a party, for the purposes of this Section 8(b), may be changed by giving written notice to the other party of such change in the manner provided herein for giving notice. Unless and until such written notice is received, the addresses as provided herein shall be deemed to continue in effect for all purposes hereunder.

(c) Standoff Agreement. The Purchaser agrees that, in connection with an underwritten initial public offering (the "IPO") registered under the Securities Act of shares of Common Stock or other equity securities of the Corporation by or on behalf of the Corporation, the Purchaser shall not sell or transfer, or offer to sell or transfer, any shares of Common Stock or other equity securities of the Corporation for such period as the managing underwriter of such offering determines is necessary to effect the IPO.

(d) Choice of Law; Consent to Jurisdiction. This Agreement shall be governed by and construed in accordance with the internal laws (without giving effect to the conflicts of law principles) of the State of New York.

(e) Severability. The parties hereto agree that the terms and provisions in this Agreement are reasonable and shall be binding and enforceable in accordance with the terms hereof and, in any event, that the terms and provisions of this Agreement shall be enforced to the fullest extent permissible under law. In the event that any term or provision of this Agreement shall for any reason be adjudged to be unenforceable or invalid, then such unenforceable or invalid term or provision shall not affect the enforceability or validity of the remaining terms and provisions of this Agreement, and the parties hereto hereby agree to replace such unenforceable or invalid term or provision with an enforceable and valid arrangement which, in its economic effect, shall be as close as possible to the unenforceable or invalid term or provision.

(f) Successors. All references in this Agreement to the Corporation shall include any and all successors in interest to the Corporation whether by merger, consolidation, sale of all or substantially all assets or otherwise, and this Agreement shall inure to the benefit of the successors and assigns of the Corporation and, subject to the terms herein set forth, shall be binding upon the Purchaser, its successors and permitted assigns.

(g) Counterparts. This Agreement may be executed in two counterparts, each of which shall be deemed an original, but which together shall constitute one and the same instrument.

(h) Modification, Amendment and Waiver. No modification, amendment or waiver of any provision of this Agreement shall be effective against the Corporation unless the same shall be in a written instrument signed by an officer of the Corporation on its behalf and such instrument is approved by its Board of Directors. The failure at any time to enforce any of the provisions of this Agreement shall in no way be construed as a waiver of such provisions and shall not affect the right of either party thereafter to enforce each and every provision hereof in accordance with its terms.

(i) Further Assurances. The parties agree to execute such further instruments and to take such further action as may reasonably be necessary to carry out the intent of this Agreement.

(j) Integration. This Agreement constitutes the entire agreement of the parties with respect to the subject matter hereof.

(k) Headings. The headings of the Sections and paragraphs of this Agreement have been inserted for convenience of reference only and do not constitute a part of this Agreement.



(1) Gender and Number. As used in this Agreement, the masculine, feminine or neuter gender, and the singular or plural, shall be deemed to include the others whenever and wherever the context so requires. Additionally, unless the context requires otherwise, “or” is not exclusive.

IN WITNESS WHEREOF, the parties hereto have duly executed this Agreement, or caused this Agreement to be duly executed by their respective officers, partners or other representatives, thereunto duly authorized, all as of the day and year first above written.

TG THERAPEUTICS, INC.

By: /s/ Michael S. Weiss  
Name: Michael S. Weiss  
Title: Chairman & Chief Executive Officer

PURCHASER:

By: /s/ Sean Power  
Name: Sean Power  
Address: \_\_\_\_\_  
\_\_\_\_\_

Tax#: \_\_\_\_\_  
\_\_\_\_\_

NUMBER OF SHARES  
OF COMMON STOCK  
SUBSCRIBED FOR:

PURCHASE PRICE  
PER SHARE: \$0.001

TOTAL PURCHASE  
PRICE: \$ \_\_\_\_\_

NEITHER THIS WARRANT NOR THE UNDERLYING SECURITIES ISSUABLE UPON EXERCISE OF THIS WARRANT HAVE BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION OR THE SECURITIES COMMISSION OF ANY STATE IN RELIANCE UPON AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), AND, ACCORDINGLY, MAY NOT BE OFFERED OR SOLD EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OR PURSUANT TO AN AVAILABLE EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND IN ACCORDANCE WITH APPLICABLE STATE SECURITIES LAWS.

**WARRANT TO PURCHASE COMMON STOCK**

**OF**

**Manhattan Pharmaceuticals, Inc.**

Warrant No. W-

\_\_\_\_\_, 201\_

THIS CERTIFIES THAT, for value received, [Name of Holder], having an address at [\_\_\_\_\_] (the "Investor"), is entitled to subscribe for and purchase at the Exercise Price (defined below) from Manhattan Pharmaceuticals, Inc., a Delaware corporation, (the "Company") at any time during the period commencing on the Initial Exercise Date (as herein defined) and ending at 5:00 p.m., Eastern time, on \_\_\_\_\_, 201\_ (the "Expiration Date"), [\_\_\_\_\_] shares of the Common Stock (as herein defined), in accordance with the terms thereof (as such number may be adjusted as provided herein, the "Warrant Shares"), subject to the provisions and upon the terms and conditions hereinafter set forth in this Warrant ("Warrant"). This Warrant is being issued pursuant to the terms of the Subscription Agreement, dated as of \_\_\_\_\_, 201\_, as amended, by and among the Company, the original Investor and the other parties named therein (the "Purchase Agreement").

1. Definitions. As used in this Warrant, the following terms have the meanings set forth below:

"Aggregate Number" shall mean, at any time to be determined, the number of Warrant Shares for which this Warrant may be exercised at such time.

"Business Day" shall mean any day other than a Saturday, Sunday or other day on which commercial banks in New York, New York are authorized or required by law or executive order to close.

"Common Stock" shall mean the common stock, par value \$.001 per share, of the Company (and any other securities into which or for which the Common Stock may be converted or exchanged pursuant to a dividend, stock split, plan of recapitalization, reorganization, merger, sale of assets or otherwise) into which this Warrant will be exercisable.

"Company" shall have the meaning set forth in the introductory paragraph hereto.

“Exercise Price” shall mean \$0.04 per share of Common Stock, subject to adjustment pursuant to Section 6 below.

“Expiration Date” shall have the meaning set forth in the introductory paragraph hereto.

“Fair Market Value” shall mean, with respect to a share of Common Stock on any date: (i) the fair market value of the outstanding Common Stock over the ten (10) trading days immediately prior to the date of calculation based upon the closing price per share of Common Stock on each such day, as officially reported on the principal national securities exchange on which the Common Stock is then listed or admitted to trading; or (ii) if subsection (i) is not applicable, a market price per share determined in good faith by the Board of Directors of the Company, which shall be deemed to be “Fair Market Value.”

“Holder” shall mean the Investor or any holder of an interest in the Warrant or the outstanding Warrant Shares who becomes a holder in compliance with Section 4 hereof.

“Initial Exercise Date” shall mean \_\_\_\_\_, 201\_.

“Investor” shall have the meaning set forth in the introductory paragraph hereto.

“Person” shall mean any individual, corporation, partnership, firm, limited liability company, joint venture, trust, association, unincorporated organization, university, group, joint-stock company or other entity.

“Securities Act” shall mean the Securities Act of 1933, as amended, or any similar federal statute, and the rules and regulations promulgated thereunder as the same shall be in effect at the time.

“Stock Combination” shall have the meaning set forth in Section 6(a)(i).

“Stock Dividend” shall have the meaning set forth in Section 6(a)(i).

“Stock Subdivision” shall have the meaning set forth in Section 6(a)(i).

“Transaction” shall have the meaning set forth in Section 6(b).

“Warrant Register” shall have the meaning set forth in Section 8.

“Warrant Shares” shall have the meaning set forth in the preamble.

## 2. Exercise of Warrant.

(a) Beginning on the Initial Exercise Date, the rights represented by this Warrant may be exercised by the Holder hereof, in whole or in part (but not as to a fractional share of Common Stock), by (A) the delivery of this Warrant, together with a properly completed Notice of Exercise in the form attached hereto, to the principal office of the Company at 787 Seventh Avenue, 48<sup>th</sup> Floor, New York, New York 10019 (or to such other address as the Company may designate by notice in writing to the Holder) and (B) payment to the Company of the Exercise Price for the Warrant Shares being purchased by cash or by certified check or bank draft. The Company agrees that the shares so purchased shall be deemed to be issued to the Holder as the record owner of such shares as of the close of business on the date on which this Warrant shall have been delivered to the Company and payment made for such shares as aforesaid. Certificates for the shares so purchased shall be delivered to the Holder within ten (10) Business Days after the rights represented by this Warrant shall have been so exercised, and, unless this Warrant has expired, a new Warrant representing, and with an Aggregate Number equal to, the number of Warrant Shares, if any, with respect to which this Warrant shall not then have been exercised, in all other respects identical with this Warrant, shall also be issued and delivered to the Holder within such time, or, at the request of such Holder, appropriate notation may be made on this Warrant and signed by the Company and the same returned to such Holder. The Holder shall not be required to deliver the original Warrant in order to effect an exercise hereunder. Execution and delivery of the Exercise Notice shall have the same effect as cancellation of the original Warrant and issuance of a new Warrant evidencing the right to purchase the remaining number of Warrant Shares. The Company shall, upon request of the Holder, use its reasonable best efforts to deliver Warrant Shares hereunder electronically through The Depository Trust Company or another established clearing corporation performing similar functions.

(b) Transfer Restriction Legend. Each certificate for Warrant Shares issued upon exercise of this Warrant, unless at the time of exercise the offer and sale of such Warrant Shares are registered under the Securities Act, shall bear the following legend (and any additional legend required by applicable law or rule) on the face thereof:

THE OFFER AND SALE OF THE SHARES OF STOCK REPRESENTED HEREBY HAVE NOT BEEN REGISTERED PURSUANT TO THE SECURITIES ACT OF 1933, AS AMENDED, OR ANY STATE SECURITIES LAW. NEITHER THESE SHARES, NOR ANY PORTION THEREOF OR INTEREST THEREIN, MAY BE SOLD, TRANSFERRED OR OTHERWISE DISPOSED OF UNLESS THE SAME ARE REGISTERED AND QUALIFIED IN ACCORDANCE WITH SAID ACT AND ANY APPLICABLE STATE SECURITIES LAW, OR, IN THE OPINION OF COUNSEL REASONABLY SATISFACTORY TO THE COMPANY, SUCH REGISTRATION AND QUALIFICATION ARE NOT REQUIRED.

The provisions of Section 4 shall be binding upon all holders of certificates for Warrant Shares bearing the above legend and shall also be applicable to all holders of this Warrant. The legend endorsed on the certificates for Warrant Shares shall be removed and the Company shall issue a certificate without such legend to the holder thereof at such time as the securities evidenced thereby cease to be restricted securities upon the earliest to occur of (i) a registration statement with respect to the resale of such securities shall have become effective under the Securities Act and such securities shall have been disposed of in accordance with such registration statement, or (ii) the securities shall have been resold to the public pursuant to Rule 144 (or any successor provision) under the Securities Act.

(c) Expenses and Taxes on Exercise. The Company shall pay all expenses, taxes and other charges payable in connection with the preparation, execution and delivery of any stock certificates and substitute Warrants pursuant to this Section 2, except that, in case such stock certificates or Warrants shall be registered in a name or names other than the name of the Holder of this Warrant, funds sufficient to pay all stock transfer taxes which shall be payable upon the execution and delivery of such stock certificates or Warrants shall be paid by the Holder to the Company at the time the Company delivers such stock certificates or Warrants to the Company for exercise. The Holder shall be responsible for all other tax liability that may arise as a result of holding or transferring this Warrant or receiving Warrant Shares upon exercise hereof.

(d) Company Obligations. The Company's obligations to issue and deliver Warrant Shares in accordance with the terms hereof are absolute and unconditional, irrespective of any action or inaction by the Holder to enforce the same, any waiver or consent with respect to any provision hereof, the recovery of any judgment against any Person or any action to enforce the same, or any setoff, counterclaim, recoupment, limitation or termination, or any breach or alleged breach by the Holder or any other Person of any obligation to the Company or any violation or alleged violation of law by the Holder or any other Person, and irrespective of any other circumstance which might otherwise limit such obligation of the Company to the Holder in connection with the issuance of Warrant Shares. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to deliver certificates representing shares of Common Stock upon exercise of this Warrant as required pursuant to the terms hereof.

### 3. Redemption.

Each Warrant shall be redeemable at the option of the Company at a redemption price equal to \$0.001 per share of Common Stock purchasable under such Warrant at any time after the Common Stock of the Company is traded on an Over-the-Counter Bulletin Board or on a national securities exchange and the per share average closing price of the Common Stock equals or exceeds an amount that is twice the Exercise Price under such Warrant for a period of 30 consecutive trading days; provided that Warrants may not be redeemed by the Company unless the resale of the shares of Common Stock purchasable under the Warrants has been registered under the Securities Act or such shares of Common Stock are otherwise freely tradable.

### 4. Warrants and Warrant Shares Not Registered; Transferee Restrictions.

(a) Each Holder, by acceptance thereof, represents and acknowledges that the offer and sale of this Warrant and the Warrant Shares which may be purchased upon exercise of this Warrant are not being registered under the Securities Act, that the issuance of this Warrant and the offering and sale of such Warrant Shares are being made in reliance on the exemption from registration under Section 4(2) of the Securities Act as not involving any public offering and that the Company's reliance on such exemption is predicated in part on the representations made by the initial Holder of this Warrant to the Company that such Holder (i) is acquiring this Warrant for investment purposes for its own account, with no present intention of reselling or otherwise distributing the same in violation of the Securities Act, subject, nevertheless, to any requirement of law that the disposition of its property shall at all times be within its control, (ii) is an "accredited investor" as defined in Regulation D under the Securities Act, and (iii) has such knowledge and experience in financial and business matters that it is capable of evaluating the merits and risks of the investments made or to be made in connection with the acquisition and exercise of this Warrant. Neither this Warrant nor the related Warrant Shares may be transferred except pursuant to an effective registration statement under the Securities Act or upon the conditions specified in Section 4(b).

(b) Notice of Transfer, Opinion of Counsel. Each Holder, by acceptance hereof, agrees that prior to the disposition of this Warrant or of any Warrant Shares, other than pursuant to an effective registration under the Securities Act, such Holder will give written notice to the Company expressing such Holder's intention to effect such disposition and describing briefly such Holder's intention as to the manner in which this Warrant or the Warrant Shares theretofore issued or thereafter issuable upon exercise hereof, are to be disposed together with an opinion of counsel as may be designated by such Holder and reasonably satisfactory to the Company as to the necessity or non-necessity of registration under the Securities Act. If in the opinion of such counsel, the proposed disposition does not require registration under the Securities Act of the disposition of this Warrant and/or the Warrant Shares issuable or issued upon the exercise of this Warrant, such Holder shall be entitled to dispose of this Warrant and/or the Warrant Shares theretofore issued upon the exercise hereof, all in accordance with the terms of the notice delivered by such Holder to the Company. The Company is entitled to rely on the most recent written notice from the Holder with respect to the ownership of the Warrant.

5. Representations, Warranties and Covenants of the Company.

(a) The Company hereby represents and warrants that (i) it has full corporate power and authority to execute and deliver this Warrant, (ii) the execution and delivery of this Warrant and the consummation by the Company of the transactions contemplated hereby have been duly and validly approved by all necessary corporate action on the part of the Company and (iii) this Warrant has been duly executed and delivered by the Company and constitutes the legal, valid and binding obligation of the Company, enforceable in accordance with its terms.

(b) The Company covenants and agrees that (i) during the period within which the rights represented by this Warrant may be exercised, the Company will have at all times authorized, and reserved for the purpose of issue or transfer upon exercise of the rights evidenced by this Warrant, a sufficient number of shares of Common Stock to provide therefore, (ii) the Warrant Shares issued pursuant to the exercise of this Warrant will, upon issuance, be duly and validly issued, fully paid and non-assessable and (iii) the Company shall use its commercially reasonable efforts to procure at its sole expense the listing of all Warrant Shares then registered for public sale (subject to issuance or notice of issuance) on all stock exchanges on which the shares of Common Stock are then listed.

6. Adjustments of Aggregate Number.

(a) Adjustments. The Aggregate Number, after taking into consideration any prior adjustments pursuant to this Section 6, shall be subject to adjustment from time to time as follows and, thereafter, as adjusted, shall be deemed to be the Aggregate Number hereunder. No adjustments shall be made under this Section 6 as a result of the issuance by the Company of the Warrant Shares upon exercise of this Warrant.

(i) Stock Dividends; Subdivisions and Combinations. In case at any time or from time to time the Company shall:

(A) issue to the holders of the Common Stock a dividend payable in, or other distribution of, Common Stock (a “Stock Dividend”),

(B) subdivide its outstanding shares of Common Stock into a larger number of shares of Common Stock, including, without limitation, by means of a stock split (a “Stock Subdivision”), or

(C) combine its outstanding shares of Common Stock into a smaller number of shares of Common Stock (a “Stock Combination”),

then the Aggregate Number in effect immediately prior thereto shall be (1) proportionately increased in the case of a Stock Dividend or a Stock Subdivision and (2) proportionately decreased in the case of a Stock Combination. In the event the Company shall declare or pay, without consideration, any dividend on the Common Stock payable in any right to acquire Common Stock for no consideration, then the Company shall be deemed to have made a Stock Dividend in an amount of shares equal to the maximum number of shares issuable upon exercise of such rights to acquire Common Stock.

(ii) Miscellaneous. The following provisions shall be applicable to the making of adjustments of the Aggregate Number provided above in this Section 6(a):

(A) Whenever the Aggregate Number is adjusted pursuant to this Section 6(a), the Exercise Price per Warrant Share payable upon exercise of this Warrant shall be adjusted by multiplying the Exercise Price immediately prior to such adjustment by a fraction, the numerator of which shall be the Aggregate Number prior to such adjustment, and the denominator of which shall be the Aggregate Number following such adjustment.

(B) If the Company shall take a record of the holders of the Common Stock for the purpose of entitling them to receive a dividend or distribution or subscription or purchase rights and shall, thereafter and before the distribution to stockholders thereof, legally abandon its plan to pay or deliver such dividend, distribution, subscription or purchase rights, then no adjustment shall be required by reason of the taking of such record and any such adjustment previously made in respect thereof shall be rescinded and annulled.

(b) Changes in Common Stock. In case at any time the Company shall initiate any transaction or be a party to any transaction (including, without limitation, a merger, consolidation, share exchange, sale, lease or other disposition of all or substantially all of the Company’s assets, liquidation, recapitalization or reclassification of the Common Stock or other transaction) in connection with which the previous outstanding Common Stock shall be changed into or exchanged for different securities of the Company or securities of another corporation or interests in a non-corporate entity or other property (including cash) or any combination of the foregoing (each such transaction being herein called a “Transaction”), then, as a condition of the consummation of the Transaction and without duplication of any adjustment made pursuant to Section 6(a)(i), lawful, enforceable and adequate provision shall be made so that the Holder shall be entitled to receive upon exercise of this Warrant at any time on or after the consummation of the Transaction, in lieu of the Warrant Shares issuable upon such exercise prior to such consummation, the securities or other property (including cash) to which such Holder would have been entitled upon consummation of the Transaction if such Holder had exercised this Warrant immediately prior thereto (subject to adjustments from and after the consummation date as nearly equivalent as possible to the adjustments provided for in this Section 6). The foregoing provisions of this Section 6(b) shall similarly apply to successive Transactions. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Transaction, then the Holder shall be given the same choice as to the consideration it receives upon any exercise of this Warrant following such Transaction. At the Holder’s request, any successor to the Company or surviving entity in such Transaction shall issue to the Holder a new warrant consistent with the foregoing provisions.



(c) Public Financing Adjustment. Notwithstanding the adjustments in Section 6(a)(i), if the Common Stock of Company is not traded on an Over-the-Counter Bulletin Board or a national securities exchange on or before the first anniversary of the Initial Exercise Date, then the Warrant Shares will be adjusted by multiplying the Warrant Shares immediately prior to the first anniversary by two (2). For adjustments made to the number of Warrant Shares pursuant to this Section 6(c), the Exercise Price immediately prior to such adjustment will remain unchanged.

(d) Notices.

(i) Notice of Proposed Actions. In case the Company shall propose (A) to pay any Stock Dividend payable in stock of any class to the holders of the Common Stock or to make any other distribution to the holders of the Common Stock, (B) to effect any reclassification of the Common Stock, (C) to effect any recapitalization, Stock Subdivision, Stock Combination or other capital reorganization, (D) to effect any consolidation or merger, share exchange, or sale, lease or other disposition of all or substantially all of its property, assets or business, (E) to effect a Transaction, or any other liquidation, dissolution or winding up of the Company, or (F) to effect any other action which would require an adjustment under this Section 6, then in each such case the Company shall give to the Holder written notice of such proposed action, which shall specify the date on which a record is to be taken for the purposes of such Stock Dividend, Stock Subdivision, Stock Combination, or distribution, or the date on which such Transaction, reclassification, recapitalization, reorganization, consolidation, merger, share exchange, sale, lease, transfer, disposition, liquidation, dissolution, winding up or other transaction is to take place and the date of participation therein by the holders of Common Stock, if any such date is to be fixed, or the date on which the transfer of Common Stock is to occur, and shall also set forth such facts with respect thereto as shall be reasonably necessary to indicate the effect of such action on the Common Stock and on the Aggregate Number after giving effect to any adjustment which will be required as a result of such action. Such notice shall be so given in the case of any action covered by clause (A) or (B) above at least ten (10) days prior to the record date for determining holders of the Common Stock for purposes of such action and, in the case of any other such action, at least ten (10) days prior to the earlier of the date of the taking of such proposed action or the date of participation therein by the holders of Common Stock.

(ii) Adjustment Notice. Whenever the Aggregate Number is to be adjusted pursuant to this Section 6, unless otherwise agreed by the Holder, the Company shall promptly (and in any event within twenty (20) Business Days after the event requiring the adjustment) prepare a certificate signed by the principal executive officer or the principal financial officer of the Company, setting forth, in reasonable detail, the event requiring the adjustment and the method by which such adjustment is to be calculated. The Company shall keep at its principal office copies of all such certificates and cause the same to be available for inspection at said office during normal business hours by the Holder or any prospective purchaser of the Warrant (in whole or in part) if so designated by the Holder.

7. Exchange, Replacement and Assignability. This Warrant is exchangeable, upon the surrender hereof by the Holder at the office or agency of the Company described in Section 2, for new Warrants of like tenor and date representing in the aggregate the right to purchase the number of Warrant Shares which may be purchased hereunder, each of such new Warrants to represent the right to purchase such number of Warrant Shares as shall be designated by such Holder at the time of such surrender. Upon receipt of evidence satisfactory to the Company of the loss, theft, destruction or mutilation of Warrants and, in the case of any such loss, theft or destruction, of an indemnity letter (reasonably satisfactory to the Company) of an institutional holder of such Warrants, or in other cases, of a bond of indemnity or other security satisfactory to the Company, or, in the case of any such mutilation, upon surrender or cancellation of Warrants, the Company will issue to the Holder a new Warrant of like tenor and date, in lieu of this Warrant or such new Warrants, representing the right to purchase the number of Warrant Shares which may be purchased hereunder. Subject to compliance with Section 4, this Warrant and all rights hereunder are transferable in whole or in part upon the books of the Company by the registered Holder hereof in person or by duly authorized attorney, and new Warrants shall be made and delivered by the Company, of the same tenor and date as this Warrant but registered in the name of the transferees, upon surrender of this Warrant, duly endorsed, to the appropriate office or agency of the Company. All expenses, taxes (other than stock transfer taxes) and other charges payable in connection with the preparation, execution and delivery of Warrants pursuant to this Section 7 shall be paid by the Company.

8. Registration of Warrant. The Company shall register this Warrant, upon records to be maintained by the Company for that purpose (the "Warrant Register"), in the name of the record Holder hereof from time to time. The Company may deem and treat the registered Holder of record of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary.

9. Warrant Agent. The Company shall serve as warrant agent under this Warrant. Upon 30 days' notice to the Holder, the Company may appoint a new warrant agent. Any corporation into which the Company or any new warrant agent may be merged or any corporation resulting from any consolidation to which the Company or any new warrant agent shall be a party or any corporation to which the Company or any new warrant agent transfers substantially all of its corporate trust or stockholder services business shall be a successor warrant agent under this Warrant without any further act. Any such successor warrant agent shall promptly cause notice of its succession as warrant agent to be mailed (by first class mail, postage prepaid) to the Holder at the Holder's last address as shown on the Warrant Register.

10. Transfer Books, No Rights as Shareholder, Survival of Rights. The Company will at no time close its transfer books against the transfer of this Warrant or any Warrant Shares in any manner which interferes with the timely exercise of this Warrant. This Warrant shall not entitle the Holder to any voting rights or any rights as a shareholder of the Company. The rights and obligations of the Company, of the Holder of this Warrant and of any Holder of Warrant Shares issued upon exercise of this Warrant pursuant to the terms of this Warrant shall survive the exercise of this Warrant.

11. No Inconsistent Agreements. The Company shall not hereafter enter into any agreement with respect to its securities which is inconsistent with or violates the rights granted to the Holders in this Warrant.

12. Amendment and Waiver.

(a) It is agreed that any waiver, permit, consent or approval of any kind or character on the Holder's part of any breach or default under this Warrant, or any waiver on the Holder's part of any provisions or conditions of this Warrant must be in writing.

(b) Any amendment, supplement or modification of or to any provision of this Warrant, any waiver of any provision of this Warrant and any consent to any departure by any party from the terms of any provision of this Warrant shall be effective only if it is made or given in writing and signed by the Company and the Holder.

(c) Any amendment or waiver consented to as provided in this Section 12 is binding upon each future Holder of this Warrant and upon the Company without regard to whether this Warrant has been marked to indicate such amendment or waiver.

13. Rights of Transferees. Subject to compliance with Section 4, the rights granted to the Holder hereunder of this Warrant shall pass to and inure to the benefit of all subsequent transferees of all or any portion of the Warrant (provided that the Holder and any transferee shall hold such rights in proportion to their respective ownership of the Warrant and Warrant Shares) until extinguished pursuant to the terms hereof.

14. Headings. The headings in this Warrant are for convenience of reference only and shall not constitute a part of this Warrant, nor shall they affect their meaning, construction or effect.

15. Notices. All notices, demands and other communications provided for or permitted hereunder shall be in writing and shall be deemed to have been given: (a) when delivered by hand (with written confirmation of receipt); (b) when received by the addressee if sent by a nationally recognized overnight courier (receipt requested); (c) on the date sent by facsimile or e-mail of a PDF document (with confirmation of transmission) if sent during normal business hours of the recipient, and on the next Business Day if sent after normal business hours of the recipient; or (d) on the third day after the date mailed, by certified or registered mail, return receipt requested, postage prepaid. Such communications must be sent to the respective parties at the addresses indicated below (or at such other address for a party as shall be specified in a notice given in accordance with this Section 15).

If to the Company:

Manhattan Pharmaceuticals, Inc.  
787 Seventh Avenue, 48<sup>th</sup> Floor  
New York, NY 10019  
Attn: Chief Executive Officer

with a copy to:

Alston & Bird LLP  
90 Park Avenue  
New York, NY 10016  
Attn: Mark McElreath, Esq.

If to the Holder:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

16. Successors and Assigns. This Warrant shall be binding upon and inure to the benefit of the parties hereto and their respective successors or heirs and personal representatives and permitted assigns; provided, that the Company shall have no right to assign its rights, or to delegate its obligations, hereunder without the prior written consent of the Holder.

17. Governing Law. This Agreement and (unless otherwise provided) all amendments hereof and waivers and consents hereunder shall be governed by the laws of the State of New York, notwithstanding any conflict of law provision to the contrary. THE COMPANY HEREBY CONSENTS AND AGREES THAT THE STATE OR FEDERAL COURTS LOCATED IN NEW YORK COUNTY, CITY OF NEW YORK, NEW YORK, SHALL HAVE EXCLUSIVE JURISDICTION TO HEAR AND DETERMINE ANY CLAIMS OR DISPUTES BETWEEN THE COMPANY AND THE HOLDER PERTAINING TO THIS WARRANT OR ANY OF THE OTHER TRANSACTION DOCUMENTS OR TO ANY MATTER ARISING OUT OF OR RELATING TO THIS WARRANT OR ANY OF THE OTHER TRANSACTION DOCUMENTS, PROVIDED, THAT THE HOLDER AND THE COMPANY ACKNOWLEDGE THAT ANY APPEALS FROM THOSE COURTS MAY HAVE TO BE HEARD BY A COURT LOCATED OUTSIDE OF NEW YORK COUNTY, AND, PROVIDED, FURTHER, NOTHING IN THIS WARRANT SHALL BE DEEMED OR OPERATE TO PRECLUDE THE HOLDER FROM BRINGING SUIT OR TAKING OTHER LEGAL ACTION IN ANY OTHER JURISDICTION TO REALIZE ON THE COLLATERAL OR ANY OTHER SECURITY FOR THE OBLIGATIONS, OR TO ENFORCE A JUDGMENT OR OTHER COURT ORDER IN FAVOR OF THE HOLDER. THE COMPANY EXPRESSLY SUBMITS AND CONSENTS IN ADVANCE TO SUCH JURISDICTION IN ANY ACTION OR SUIT COMMENCED IN ANY SUCH COURT, AND THE COMPANY HEREBY WAIVES ANY OBJECTION WHICH IT MAY HAVE BASED UPON LACK OF PERSONAL JURISDICTION, IMPROPER VENUE OR FORUM NON CONVENIENS AND HEREBY CONSENTS TO THE GRANTING OF SUCH LEGAL OR EQUITABLE RELIEF AS IS DEEMED APPROPRIATE BY SUCH COURT. THE COMPANY HEREBY WAIVES PERSONAL SERVICE OF THE SUMMONS, COMPLAINT AND OTHER PROCESS ISSUED IN ANY SUCH ACTION OR SUIT AND AGREES THAT SERVICE OF SUCH SUMMONS, COMPLAINTS AND OTHER PROCESS MAY BE MADE BY REGISTERED OR CERTIFIED MAIL ADDRESSED TO SUCH PERSON AT THE ADDRESS SET FORTH IN SECTION 15 OF THIS WARRANT AND THAT SERVICE SO MADE SHALL BE DEEMED COMPLETED UPON THE EARLIER OF ACTUAL RECEIPT THEREOF OR THREE (3) DAYS AFTER DEPOSIT IN THE U.S. MAILES, PROPER POSTAGE PREPAID.

18. Severability. If any one or more of the provisions contained herein, or the application thereof in any circumstance, is held invalid, illegal or unenforceable in any respect for any reason, the validity, legality and enforceability of any such provision in every other respect and of the remaining provisions hereof shall not be in any way impaired, unless the provisions held invalid, illegal or unenforceable shall substantially impair the benefits of the remaining provisions hereof. The parties hereto further agree to replace such invalid, illegal or unenforceable provision of this Warrant with a valid, legal and enforceable provision that will achieve, to the extent possible, the economic, business and other purposes of such invalid, illegal or unenforceable provision.

19. WAIVER OF JURY TRIAL. BECAUSE DISPUTES ARISING IN CONNECTION WITH COMPLEX FINANCIAL TRANSACTIONS ARE MOST QUICKLY AND ECONOMICALLY RESOLVED BY AN EXPERIENCED AND EXPERT PERSON AND THE PARTIES WISH APPLICABLE STATE AND FEDERAL LAWS TO APPLY (RATHER THAN ARBITRATION RULES), THE PARTIES DESIRE THAT DISPUTES ARISING HEREUNDER OR RELATING HERETO BE RESOLVED BY A JUDGE APPLYING SUCH APPLICABLE LAWS. THEREFORE, TO ACHIEVE THE BEST COMBINATION OF THE BENEFITS OF THE JUDICIAL SYSTEM AND OF ARBITRATION, THE PARTIES HERETO WAIVE ALL RIGHT TO TRIAL BY JURY IN ANY ACTION, SUIT OR PROCEEDING BROUGHT TO RESOLVE ANY DISPUTE, WHETHER SOUNDING IN CONTRACT, TORT, OR OTHERWISE, AMONG THE COMPANY AND HOLDER ARISING OUT OF, CONNECTED WITH, RELATED TO, OR INCIDENTAL TO THE RELATIONSHIP ESTABLISHED IN CONNECTION WITH, THIS WARRANT OR ANY OF THE OTHER TRANSACTION DOCUMENTS OR THE TRANSACTIONS RELATED HERETO OR THERETO.

20. Entire Agreement. This Warrant, together with the Purchase Agreement, contains the entire agreement among the parties with respect to the subject matter hereof and supersedes all prior and contemporaneous agreements or understandings with respect thereto.

*[signature page follows]*

IN WITNESS WHEREOF, the Company has caused this Warrant to be signed by its duly authorized officer, duly attested by its authorized officer, as of the date first set forth above.

Manhattan Pharmaceuticals, Inc.

By:

Name: \_\_\_\_\_

Title: \_\_\_\_\_

ATTEST:

By:

Name: \_\_\_\_\_

Title: \_\_\_\_\_

[Signature Page]

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**NOTICE OF EXERCISE**

To: Manhattan Pharmaceuticals, Inc.  
787 Seventh Ave.  
48<sup>th</sup> Floor  
New York, New York 10019

1. The undersigned, pursuant to the provisions of the attached Warrant, hereby elects to exercise this Warrant with respect to \_\_\_\_\_ shares of Common Stock (the "Exercise Amount"). Capitalized terms used but not otherwise defined herein have the meanings ascribed thereto in the attached Warrant.

2. Please issue a certificate or certificates representing the shares issuable in respect hereof under the terms of the attached Warrant, as follows:

(Name of Record Holder/Transferee)

and deliver such certificate or certificates to the following address:

(Address of Record Holder/Transferee)

3. If the Exercise Amount is less than all of the shares of Common Stock purchasable hereunder, please issue a new warrant representing the remaining balance of such shares, as follows:

(Name of Record Holder/Transferee)

and deliver such warrant to the following address:

(Address of Record Holder/Transferee)

Date:

Name of Record Holder

\_\_\_\_\_

By:

Name: \_\_\_\_\_

Title: \_\_\_\_\_

[Notice of Exercise]

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**EXCLUSIVE LICENSE AGREEMENT**

**BY AND AMONG**

**GTC BIOTHERAPEUTICS, INC.,**

**LFB BIOTECHNOLOGIES S.A.S.,**

**LFB/GTC LLC**

**and**

**TG THERAPEUTICS, INC.**

**January, 30<sup>th</sup>, 2012**

**CONFIDENTIAL**

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## EXCLUSIVE LICENSE AGREEMENT

This EXCLUSIVE LICENSE AGREEMENT (this “**Agreement**”) is entered into as of January 30th, 2012 (the “**Effective Date**”) by and among GTC Biotherapeutics, Inc., a Massachusetts corporation with a principal place of business at 175 Crossing Boulevard, Framingham, Massachusetts 01701 (“**GTC**”), LFB Biotechnologies S.A.S., a company organized under the laws of France with a principal place of business at 3 avenue des Tropiques, B.P. 305-Les Ulis- 91958, Courtaboeuf Cedex, France (“**LFB**”), LFB/GTC LLC, a New York limited liability company with a principal place of business at 175 Crossing Boulevard, Framingham, Massachusetts 01701 (“**LFB/GTC**” and, collectively with GTC and LFB, “**LICENSOR**”) and TG Therapeutics, Inc., a Delaware corporation with a principal place of business at 787 Seventh Avenue, 48<sup>th</sup> Floor, New York, New York 10019 (“**TG**”). Each of TG and LICENSOR is sometimes referred to individually herein as a “**Party**” and collectively as the “**Parties**.”

### RECITALS

WHEREAS, LICENSOR is engaged in research and development activities on new pharmaceutical products derived from or incorporating recombinant plasma proteins and/or monoclonal antibodies;

WHEREAS, LICENSOR is the owner, licensee or sublicensee of certain patents, technology and material related to the Compounds (as such term is defined below);

WHEREAS, prior to the signature of the present Agreement, LICENSOR has entered into the license agreements related to the Compound, including:

- A license agreement with Dr Hadam on an anti CD 20 monoclonal antibody, CAT 13.6.E12 and the hybridoma cell-line producing such murine antibody
- A license agreement with Pharming on the casein promoter
- A license agreement with Start/Viagen on the cloning and nuclear transfer technology

WHEREAS, pursuant to the terms and conditions of that certain Option Agreement by and between LICENSOR and TG, dated April 29, 2011 (the “**Option Agreement**”), TG was granted an exclusive option (the “**Option**”) to obtain an exclusive license under the Licensed Patent Rights and Licensed Technology (as such terms are defined below) to research, develop, use, import, offer to sell and sell the Compounds in the Field of Use (as such term is defined below) upon the satisfaction by TG of a certain Option Condition (as defined in the Option Agreement);

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WHEREAS, the Option Condition has been satisfied and TG has timely exercised the Option in accordance with the terms of the Option Agreement;

WHEREAS, pursuant to Section 3.4 of the Option Agreement, the Parties have agreed, upon exercise of the Option, to enter into a license on the terms and subject to the conditions set forth in this Agreement; and

WHEREAS, in furtherance of such transaction, LICENSOR and TG have also agreed to enter into a Development Services and Manufacturing Agreement, Commercial Supply Agreement and Stock Purchase Agreement on the terms described herein.

NOW, THEREFORE, in consideration of the mutual covenants contained herein, and for other good and valuable consideration, the Parties hereto, intending to be legally bound, hereby agree as follows:

## 1. DEFINITIONS

Whenever used in this Agreement with an initial capital letter, the terms defined in this Article 1 shall have the meanings specified.

1.1 “**Acceptance**” means, with respect to a Drug Approval Application filed for a Product (a) in the United States, the receipt of written notice from the FDA in accordance with 21 CFR 314.101(a)(2) that such Drug Approval Application is officially “filed” and (b) in the European Union, receipt of written notice of acceptance by the EMA of such Drug Approval Application for filing under the centralized European procedure in accordance with any feedback received from European Regulatory Authorities; provided, that, if the centralized filing procedure is not used, then Acceptance shall be determined upon the acceptance of such filing for such Drug Approval Application by the applicable Regulatory Authority in any Major Market Country.

1.2 “**Adverse Event**” means any untoward medical occurrence in a human clinical trial subject or in a patient who is administered a Compound or Product, whether or not considered related to the compound or product, including any undesirable sign (including abnormal laboratory findings of clinical concern), symptom or disease associated with the use of a Compound or Product, as defined more fully in 21 CFR §312.32.

1.3 “**Affiliate**” means, with respect to any Person, any other Person that, directly or indirectly, controls, or is controlled by, or is under common control with, such Person. For purposes of this definition, “control” means (a) ownership of more than fifty percent (50%) of the shares of stock entitled to vote for the election of directors in the case of a corporation, or more than fifty percent (50%) of the equity interests in the case of any other type of legal entity, (or such lesser maximum percentage permitted in those jurisdictions where majority ownership by foreign entities is prohibited); (b) status as a general partner in any partnership; or (c) any other arrangement whereby a Person controls or has the right to control the board of directors of a corporation or equivalent governing body of an entity other than a corporation.

- 1.4 “**Agreement**” means this exclusive license agreement and its Exhibit and Schedules listed in the table of content.
- 1.5 “**Annual Net Sales**” means, with respect to any Calendar Year, the aggregate amount of Net Sales for such Calendar Year.
- 1.6 “**Anticipated Date of Receipt of Marketing Authorization**” means, the date of receipt of Marketing Authorization from EMA set forth in the Development Plan (Appendix XX)
- 1.7 “**API**” means the active pharmaceutical ingredient that is intended to be used in the Manufacture of any Product.
- 1.8 “**Applicable Laws**” means any national, international, federal, state or local laws, treaties, statutes, ordinances, rules and regulations, including any rules, regulations, guidance or guidelines of Regulatory Authorities having the binding effect of law, or of any national securities exchanges or securities listing organizations or other government authorities other than Regulatory Authorities, that are in effect from time to time during the Term and applicable to a particular activity hereunder.
- 1.9 “**Background Patent Rights**” means any Patent Rights that are Controlled by LICENSOR, other than Licensed Patent Rights, containing one or more claims that could Cover any Compound or Product (including its Manufacture or its formulation or a method of its delivery or of its use). For the sake of clarity, the Background Patent Rights existing as of the Effective Date are listed on Schedule 4.
- 1.10 “**BLA**” means (a) any Biologic License Application, as defined in the FDCA and regulations promulgated thereunder, or any successor application or procedure required to market and sell a Product in the Territory; and (b) all supplements and amendments to the foregoing.
- 1.11 “**Branding**” means all matters relating to the branding of any Product, including any matters related to the selection of any trademarks, brand names, product logos, branding colors, trade dress, positioning and key messages to be incorporated into Promotional Materials used for any Product in the Territory.
- 1.12 “**Business Day**” means any day other than a Saturday or Sunday on which banking institutions in New York, New York are open for business.
- 1.13 “**Calendar Quarter**” means the period beginning on the Effective Date and ending on the last day of the calendar quarter in which the Effective Date falls, and thereafter each successive period of three (3) consecutive calendar months ending on March 31, June 30, September 30 or December 31; provided, that, the final Calendar Quarter shall end on the last day of the Term.

1.14 “**Calendar Year**” means the period beginning on the Effective Date and ending on December 31 of the calendar year in which the Effective Date falls, and thereafter each successive period of twelve (12) months commencing on January 1 and ending on December 31; provided, that, the final Calendar Year shall end on the last day of the Term.

1.15 “**Challenge**” means any challenge to the validity or enforceability of any of the Licensed Patent Rights before any administrative, judicial or other governmental authority, court, tribunal or arbitration panel, including by (a) filing a declaratory judgment action in which any of the Licensed Patent Rights is alleged to be invalid or unenforceable; (b) citing prior art pursuant to 35 U.S.C. §301, filing a request for re-examination of any of the Licensed Patent Rights pursuant to 35 U.S.C. §302 and/or §311, or provoking or becoming a party to an interference with an application for any of the Licensed Patent Rights pursuant to 35 U.S.C. §135; or (c) filing or commencing any re-examination, opposition, cancellation, nullity or similar proceedings against any of the Licensed Patent Rights in any country.

1.16 “**Change of Control**” means, with respect to TG, a transaction or series of related transactions (including any merger, consolidation, share exchange, reorganization or combination) involving TG and any Third Party that results in (a) the holders of outstanding voting securities of TG immediately prior to such transaction ceasing to represent at least fifty percent (50%) of the combined outstanding voting power of TG or of the surviving or continuing entity immediately after such transaction or series of transactions; (b) any Third Party (other than a trustee or other fiduciary holding securities under an employee benefit plan) becoming the beneficial owner of fifty percent (50%) or more of the combined voting power of the outstanding securities of TG (including as a single Third Party all persons who in concert or act together as a “group” for purposes of acquiring shares of TG, in accordance with Section 13(d) of the Securities Act of 1934) (other than an investment transaction by an entity not engaged in the pharmaceutical or biotechnology business, the purpose of which is to raise capital for TG); or (c) the sale or other disposition to a Third Party of all or substantially all of TG’s assets or business to which this Agreement relates.

1.17 “**Clinical Data**” means any and all data (together with all Clinical Trial reports and the results of analyses thereof) derived or generated from any Clinical Trial of a Compound or Product or from testing of subjects or the analysis of samples used in any such Clinical Trial.

1.18 “**Clinical Trial**” means, collectively, any Phase 1 Clinical Trial, Phase 2 Clinical Trial, Phase 3 Clinical Trial, as applicable.

1.19 “**Combination Product**” means a single product that includes, in combination with a Product, one or more therapeutically-active ingredients other than a Product that are sold in a single package or as a unit at a single price either as a fixed dosage form or as separate dosage forms.

1.20 “**Commercialization**” or “**Commercialize**” means any and all activities directed to the offering for sale and sale of a Product after Marketing Authorization has been obtained with respect to such Product, including, (a) activities directed to marketing, promoting, detailing, distributing, Manufacturing, importing, selling and offering to sell such Product; (b) interacting with Regulatory Authorities regarding any of the foregoing; and (c) seeking Pricing Approvals and Reimbursement Approvals for such Product (d) Post Approval Clinical Trials. When used as a verb, “**to Commercialize**” and “**Commercializing**” means to engage in Commercialization and “Commercialized” has a corresponding meaning.

1.21 **“Commercialization Plan”** means, with respect to any Product, the written report prepared by TG pursuant to Section 5.1 and submitted to LICENSOR for its review that (a) describes the Commercialization activities that TG reasonably expects to conduct with respect to such Product in the Territory, and (b) sets forth (i) a non-binding estimate of projected sales of such Product in the Territory, and (ii) a summary of all actual sales of such Product in the Territory, as such report may be amended or updated by TG from time to time. Without limiting the foregoing, each Commercialization Plan shall include, without limitation, (a) demographics and market dynamics, market strategies, a marketing plan (including advertising, detailing forecasts, Pricing strategies pertaining to discounts and sales forecasts) for the Territory; (b) specific Commercialization and marketing objectives, projected milestones, resource allocation requirements and activities to be performed over such period (including all anticipated Clinical Trials) (collectively, the **“Commercialization Targets”**); (c) a timeline for such activities, including the estimated launch date(s) in the Territory; (d) a sales and expense forecast (including at least five (5) years of estimated sales and expenses in terms of both volume and value) for the Territory; (e) Manufacturing plans and the expected product profile; and (f) the expected Regulatory Filings to be required and prepared, and the expected timetable for making such Regulatory Filings.

1.22 **“Commercially Reasonable Efforts”** means, with respect to the activities of TG, and/or its Affiliates, Sublicensees, Distributors, in the Development or Commercialization, as the case may be, of a particular Compound and/or Product, the level of efforts and resources typically used and expected from a pharmaceutical company of similar size for the development or commercialization of products of comparable market potential, taking into account all relevant factors including, as applicable, the stage of development, observed efficacy and safety of the Product and relative to Competitive Products in the marketplace, actual or anticipated Regulatory Authority approved labeling, the nature and extent of market exclusivity (including patent coverage, regulatory exclusivity and competitiveness of alternative products), the cost and likelihood of obtaining Marketing Authorization, the actual or projected profitability, and the reasonably expected and actual pricing, reimbursement and formulary status. For purposes of clarity, Commercially Reasonable Efforts shall be determined on a market-by-market and Indication-by-Indication basis for a particular Compound and/or Product, and it is anticipated that the level of effort may be different for different markets and may change over time, reflecting changes in the status of the Compound or Product and the market(s) involved.

1.23 **“Competitive Entity”** means any Third Party that (a) together with its Affiliates and subsidiaries, collectively had worldwide sales of ethical pharmaceutical products, in the Calendar Year that preceded the Change of Control, of at least One Billion Dollars (U.S. \$1,000,000,000), and (b) on the date of such Change of Control is actively working on any research program involving the expenditure of funds or the application of full time equivalents in the aggregate amount of at least \$500,000 per Calendar Year involving a Competitive Program.

1.24 **“Competitive Products”** means any anti CD 20 monoclonal antibody for use in the Field



1.25 “**Competitive Program**” means any program that involves the research, development or commercialization of any (a) transgenically-derived chimeric monoclonal antibody or (b) cell-product anti CD 20 monoclonal antibody for use in the Field.

1.26 “**Completion**” means, with respect to any Clinical Trial, the date on which all material data reasonably expected to be derived therefrom has been generated and the final study report with respect thereto has been finalized.

1.27 “**Compounds**” means, collectively, (i) TG20 and/or (b) LFB-R603.

1.28 “**Confidential Information**” means with respect to each Party, all information, Technology and Proprietary Materials that is (i) TG Background Technology, in the case of TG and (ii) Licensed Technology, in the case of LICENSOR, and, that, in any case, is disclosed or provided by or on behalf of such Party (the “**Disclosing Party**”) to the other Party (the “**Receiving Party**”) or to any of the Receiving Party’s employees, consultants, Affiliates or sublicensees; provided, that, none of the foregoing shall be Confidential Information if: (A) as of the date of disclosure, it is known to the Receiving Party or its Affiliates as demonstrated by contemporaneous written documentation maintained in the ordinary course of business, other than by virtue of a prior confidential disclosure to such Receiving Party; (B) as of the date of disclosure it is in the public domain, or it subsequently enters the public domain through no fault of the Receiving Party; (C) it is obtained by the Receiving Party from a Third Party having a lawful right to make such disclosure free from any obligation of confidentiality to the Disclosing Party; or (D) it is independently developed by or for the Receiving Party without reference to or use of any Confidential Information of the Disclosing Party as demonstrated by contemporaneous written documentation maintained in the ordinary course of business. For purposes of clarity, (a) unless excluded from Confidential Information pursuant to the preceding sentence, any scientific, technical, manufacturing or financial information of a Party that is disclosed through any report (including any audit report) shall constitute Confidential Information of the Disclosing Party; (b) all Clinical Data produced by TG in connection with the Development of a Compound or Product and/or in the conduct of Clinical Trials shall be Confidential Information of TG; and (c) any combination of Confidential Information shall not be considered in the public domain or in the possession of the Receiving Party merely because individual elements of such Confidential Information are in the public domain or in the possession of the Receiving Party unless the combination and its principles are in the public domain or in the possession of the Receiving Party.

1.29 “**Control**” or “**Controlled**” means (a) with respect to Technology (other than Proprietary Materials) or Patent Rights, the possession by a Party (or an Affiliate of such Party, as applicable) of the right to grant a license or sublicense to such Technology or Patent Rights as provided herein without violating the terms of any agreement or arrangement with, infringing the Patent Rights of, or misappropriating the proprietary or trade secret information of, any Third Party and without violating any Applicable Laws and (b) with respect to Proprietary Materials, the possession by a Party of the right to supply such Proprietary Materials to the other Party as provided herein without violating the terms of any agreement or arrangement with any Third Party and without violating any Applicable Laws. Notwithstanding the foregoing, no Party (or Affiliate of a Party, as applicable) shall be deemed to Control any Technology, Proprietary Materials or Patent Rights solely by virtue of the license grants set forth in this Agreement.

1.30 **“Cover”** or **“Covered”** means, with respect to a Product, that the manufacture, use or sale of such Product in a particular country by an unlicensed Third Party would infringe a Valid Claim.

1.31 **“Development”** or **“Develop”** means, with respect to a Product, (a) all non-clinical and clinical drug development activities that are undertaken after the Effective Date up to and including the date of obtaining of Marketing Authorization of such Product to obtain including (i) the conduct of Clinical Trials, toxicology and pharmacology testing, test method development and stability testing, process development (“Process Development” as defined below in Section 1.84) (including the Manufacture of validation and engineering batches), formulation development, delivery system development, quality assurance and quality control development, analytical method development, human clinical studies and regulatory affairs activities and statistical analysis and report writing; (ii) the preparation of Clinical Trial design and operations; (iii) preparing and filing Drug Approval Applications, and (b) all activities related to Manufacturing Development and (c) any and all other activities that may be necessary or useful to obtain Regulatory Approval. When used as a verb, **“Developing”** means to engage in Development and **“Developed”** has a corresponding meaning.

1.32 **“Development Plan”** means, with respect to the Compound and/or any Product, the non-binding written plan for, and estimated budget applicable to, the Development activities anticipated to be conducted by TG for the Compound and/or Product, as such written plan may be amended, modified or updated in accordance with Section 3.1.3. Topics that may be covered in the plan, (a) the Clinical Trials (including investigator-initiated clinical trials) that are expected to be conducted and the expected timeline for conducting such Clinical Trials; (b) the expected Drug Approval Applications to be required and prepared, and the expected timetable for making such Drug Approval Applications; (c) the pharmaceutical development and Manufacturing strategy, proposed timelines for Manufacturing, acquisition, Manufacturing scale-up, formulation, filling and/or shipping of the Product;

1.33 **“Development Program”** means (a) the Development activities to be conducted by TG during the Term with respect to the Compounds and (b) the Development activities to be conducted by LICENSOR during the Term under the Development Services and Manufacturing Agreement as set forth in the Development Plan and defined in 3.1.2.

1.34 **“Distributor”** means any Person that purchases Product from TG or any of TG’s Affiliates or Sublicensees for purposes of resale of Product to end users in the Territory (including any wholesalers, pharmacists or hospitals).

1.35 “**Divest**” means, with respect to a Competitive Program, a divestiture of such Competitive Program to a Third Party by sale, license or otherwise; provided, that, if such divestiture is made by TG by way of one or more licenses or sublicenses, (a) TG and its Affiliates shall not hold or retain any rights with respect to such Competitive Program other than (i) the right to receive license fees, milestone payments and royalties on sales of products (or other sources of revenue, including with respect to Manufacturing) with respect to such Competitive Program, (ii) the right to defend claims of infringement, (iii) the right to assert claims of infringement against Persons who may infringe its intellectual property rights with respect to products with respect to such Competitive Program and (iv) the right to otherwise control filings and patent term extensions connected with any licensed or sublicensed Patent Rights, and (b) TG and its Affiliates are not consulted with respect to, and do not otherwise participate in, any decisions (other than those described in clauses (ii), (iii) and (iv) above), or otherwise collaborate with any Third Party, with respect to (x) the commercialization of products with respect to such Competitive Program or (y) the commercial strategy with respect to products with respect to such Competitive Program.

1.36 “**Drug Approval Application**” means, with respect to a Product in the Territory, an application for Marketing Authorization for such Product in the Territory. For purposes of clarity, Drug Approval Application shall include, without limitation, (a) an NDA or BLA (for US) or MAA (for Europe); (b) a counterpart of an NDA or BLA, sNDA or sBLA, or MAA in any country or region in the Territory; and (c) all supplements and amendments to the foregoing.

1.37 “**EMA**” means the European Medicines Agency or any successor agency or authority thereto.

1.38 “**Excluded Application**” means (a) any application involving the determination or monitoring of (i) the presence or absence of a disease; (ii) the stage, progression or severity of a disease or (iii) the effect on a disease of a particular treatment; (b) any application involving the selection of patients for a particular treatment; and (c) any *in vitro* applications or uses.

1.39 “**Executive Officer**” means the Chief Executive Officer of LFB and the Chief Executive Officer of TG.

1.40 “**FDA**” means the United States Food and Drug Administration or any successor agency or authority thereto.

1.41 “**FDCA**” means the United States Federal Food, Drug, and Cosmetic Act, as amended.

1.42 “**Field**” means the treatment, control, mitigation, prevention and/or cure of all human therapeutic Indications. For purpose of clarity, the definition of “**Field**” shall not include any Excluded Application.

1.43 “**First Commercial Sale**” means, with respect to a Product in the Territory, the first sale, transfer or disposition for value to an end user of such Product in the Territory after Marketing Authorization for such Product has been received in the Territory; provided, that, a First Commercial Sale shall not include: (a) any sale to an Affiliate, Sublicensee or Distributor (unless the Affiliate, Sublicensee or Distributor is the last entity in the distribution chain of the Product), (b) any use of a Product in Clinical Trials, pre-clinical studies or other research or development activities, or (c) the disposal or transfer of Products for a bona fide charitable purpose, including compassionate use or named patient use.

1.44 **“Force Majeure”** means any occurrence beyond the reasonable control of a Party that (a) prevents or substantially interferes with the performance by such Party of any of its obligations hereunder and (b) occurs by reason of any act of God, flood, fire, explosion, earthquake, strike, lockout, labor dispute, casualty or accident, or war, revolution, civil commotion, act of terrorism, blockage or embargo, or any injunction, law, order, proclamation, regulation, ordinance, demand or requirement of any government or of any subdivision, authority or representative of any such government.

1.45 **“GLP”** means the then-current Good Laboratory Practice Standards promulgated or endorsed by the FDA or, in the case of foreign jurisdictions, comparable regulatory standards promulgated or endorsed by the applicable Regulatory Authority.

1.46 **“GMP”** means current Good Manufacturing Practices that apply to the Manufacture of API and/or the clinical or commercial supply of Products, including, without limitation, the United States regulations set forth under Title 21 of the United States Code of Federal Regulations, parts 210 and 211, as amended from time-to-time, as well as all applicable guidance published from time-to-time by the FDA or, in the case of foreign jurisdictions, comparable regulatory standards promoted or endorsed by the applicable Regulatory Authority and the International Conference on Harmonization Guidelines ICHQ7A Good Manufacturing Practice Guidance for API or the principles and guidelines of Good Manufacturing Practices for Medicinal Products as defined with EC Directive 2003/94/EC and associated EC Guide to Good Manufacturing Practice.

1.47 **“Good Clinical Practice”** or **“GCP”** means the applicable regulations or guidance relating to the design, conduct, recording, and reporting of Clinical Trials that involve the participation of human subjects, when generating Clinical Trial data intended to be submitted to Regulatory Authorities, as set forth in the FDCA and any regulations or guidance documents promulgated thereunder, including but not limited to the ICH E6 consolidated guidance on Good Clinical Practice.

1.48 **“Hadam License Agreement”** means that certain License Agreement, dated August 15, 2006, by and between LFB and Dr. Martin Hadam.

1.49 **Hatch-Waxman Act”** means the Drug Price Competition and Patent Term Restoration Act of 1984, as amended.

1.50 **“IND”** means: (a) an Investigational New Drug Application, as defined in the FDCA and regulations promulgated thereunder, or any successor application or procedure required to initiate clinical testing of a Product in humans in the Territory; and (b) all supplements and amendments to the foregoing.

1.51 **“Indication”** means each separate and distinct disease, illness and/or condition, interruption, cessation or disorder of a particular bodily function, system, tissue type or organ, or sign or symptom of any such items or conditions, regardless of the severity, frequency or route of any treatment, dosage strength or patient class, for which Regulatory Approval is being sought.

1.52 **Investigator's Brochure** means a compilation of preclinical and clinical data with respect to a new investigational drug that is proposed for filing with a Regulatory Authority and used to provide information to clinical investigators and Regulatory Authorities.

1.53 **Joint Improvement** means any Program Technology that is (a) jointly conceived, developed or reduced to practice by one or more employees of, or consultants to, TG and/or its Affiliates, Sublicensees, Distributors and one or more employees of, or consultants to, LICENSOR or (b) conceived, developed, or reduced to practice solely by one or more employees of, or consultants to TG resulting from the use by TG in any material respect of the Licensed Technology, Licensed Patent Rights, Background Patent Right or LICENSOR Materials.

1.54 **Joint Patent rights** means any Patent Rights related to Joint Improvements.

1.55 **Knowledge** or **Known** means, with respect to a Party, the actual knowledge of the Executive Officer or of any executive officer (as defined for purposes of Section 14 of the Securities Exchange Act of 1934, as amended) of such Party.

1.56 **LFB-R603** means the cell-culture produced chimeric monoclonal antibody described on Schedule 3 attached hereto and incorporated herein by reference.

1.57 **Licensed Patent Rights** means any Patent Rights that are Controlled by LICENSOR during the Term and that (a) contain one or more claims that Cover any Compound or Product; and (b) are necessary or useful for TG to Develop and/or Commercialize any Compound or Product in the Field and in the Territory. For purposes of clarity, (a) the Licensed Patent Rights existing as of the Effective Date are listed on Schedule 4 attached hereto and (b) Schedule 4 shall be updated by LICENSOR by written notice to TG on an annual basis during the Term to include any additional patents and patent applications not previously listed; provided, that, the exclusion of a patent or patent application from Schedule 4 shall not be deemed to be a conclusive indication of whether that patent or application is or should be considered a "Licensed Patent Right" for purposes of this Agreement.

1.58 **Licensed Technology** means any Technology that is Controlled by LICENSOR during the Term and that (a) relates to any Compound or Product and (b) is necessary or useful for TG to Develop, and/or Commercialize any Compound or Product in the Field and in the Territory.

1.59 **Licensed Trademark** means the trademarks listed in Schedule 7, together with all goodwill associated therewith.

1.60 **LICENSOR Commercialization Option Period** has the meaning set forth in 5.11.

1.61 **LICENSOR Commercialization Territory** means France and Belgium.

1.62 **LICENSOR Materials** means any Proprietary Materials that are Controlled by LICENSOR and used by LICENSOR, or provided by LICENSOR for use, in the Development Program.

1.63 **“LICENSOR Improvement”** means any Program Technology that is conceived or first reduced to practice by employees of, or consultants to, LICENSOR alone or jointly with any Third Party, without the use, in any material respect, of any TG Materials or Joint Improvement.

1.64 **“Major European Market Country”** means the United Kingdom, Germany, France, Italy or Spain.

1.65 **“Manufacture”** or **“Manufacturing”** or **“Manufactured”** means all activities related to the production of any API or Product, including the manufacture, receipt, inspection, storage and handling of materials, and the manufacture, processing, purification, packaging, labeling, warehousing, quality control testing (including in-process release and stability testing), shipping and release of API or Product.

1.66 **“Manufacturing Development”** means, with respect to any API or Product, all activities related to the optimization of a commercial-grade Manufacturing process for the Manufacture of such API or Product including, test method development and stability testing, formulation, validation, productivity, trouble shooting and next generation formulation, process development, Manufacturing scale-up, strain improvements, development-stage Manufacturing, and quality assurance/quality control development.

1.67 **“Marketing Authorization”** means, with respect to any Product, the Regulatory Approval required by Applicable Laws to market and sell such Product for use for any Indication in the Field in the Territory,. For purposes of clarity, (a) **“Marketing Authorization”** in the United States means final approval of an NDA or BLA, or, sNDA or sBLA (depending on the Product) permitting marketing of the applicable Product in interstate commerce in the United States; and (b) **“Marketing Authorization”** in the European Union means marketing authorization for the applicable Product granted either by a Regulatory Authority in any Major Market European Country or by the EMA pursuant to Council Directive 2001/83/EC, as amended, or Council Regulation 2309/93/EEC, as amended For the avoidance of doubt, Marketing Authorization does not include Pricing Approvals and Reimbursement Approvals.

1.68 **“NADA”** means a New Animal Drug Application required by the US Food and Drug Administration for the use of any genetically engineered animal in which the gene coding for the API is stably integrated in the genome of the animal

1.69 **“NDA”** means (a) any New Drug Application, as defined in the FDCA and regulations promulgated thereunder, or any successor application or procedure required to market and sell a Product in the Territory; and (b) all supplements and amendments to the foregoing.

1.70 “Net Sales” means the gross amount billed or invoiced by TG or any of its Affiliates or Distributors (each, a “Seller”) to Third Parties in the Territory for sales or other dispositions or transfers for value of Products less (a) allowances for trade, quantity and cash discounts actually allowed and taken; (b) freight, transportation, insurance, postage charges and customs duties included on a Seller’s bill or invoice or as a separate item; (c) credits, rebates, allowances, and amounts repaid due to returns, recalls or government regulations, including allowances for uncollectible amounts and/or bad debts on previously sold Products; (d) retroactive price reductions that are actually allowed or granted; (e) sales taxes, excise taxes, value-added taxes and other taxes (other than income taxes) levied on the invoiced amount; and (f) duties, tariffs and other governmental charges. In addition, Net Sales are subject to the following:

(i) Net Sales shall not include sales or transfers between TG and any of its Affiliates, Sublicensees or Distributors unless such Affiliate, Sublicensee or Distributor is the end user of the Product.

(ii) If any Seller effects a sale, disposition or transfer of a Product to a Third Party in a particular country other than on customary commercial terms or for non-monetary consideration, the Net Sales of such Product to such Third Party shall be deemed to be “the fair market value” of such Product. For purposes of this subsection (ii), “fair market value” means the value that would have been derived had such Product been sold as a separate product to another customer in the country concerned on customary commercial terms.

(iii) For purposes of this Agreement, “sale” shall mean any transfer or other distribution or disposition, but shall not include transfers or other distributions or dispositions of Product at no charge for academic research, preclinical, clinical, or regulatory purposes (including the use of a Product in Clinical Trials) or in connection with patient assistance programs or other charitable purposes or to physicians or hospitals for promotional purposes (including free samples to a level and in an amount which is customary in the industry and/or which is reasonably proportional to the market for such Product).

(iv) For the purposes of determining royalty rates and the royalties payable on Combination Products, Net Sales of Product shall be calculated by multiplying the Net Sales of the Combination Product by the fraction  $A/A+B$ , where A is the average selling price, during the royalty paying period in question, of the Product sold separately in the country in which the sale of the Combination Product is made, and B is the average selling price, during the royalty period in question, of the other active ingredients or components sold separately. In the event that such average selling price cannot be determined for both Product and all other active ingredients and components included in the Combination Product, Net Sales for purposes of determining payments under this Agreement shall be calculated by multiplying the Net Sales of the Combination Product by the fraction  $C/(C+D)$  where C is the standard fully-absorbed cost of the Product portion of the combination, and D is the standard fully-absorbed cost of the other active ingredient or component included in the Combination Product, as determined by TG using its standard accounting procedures consistently applied. In the event that the standard fully-absorbed cost of the Product and/or the other active ingredients or components included in such Combination Product cannot be determined, for the purposes of determining royalties payable hereunder, the Parties shall negotiate in good faith to determine an appropriate commercial value for all the components in the Combination Product and calculate Net Sales of such Combination Product accordingly.

1.71 **“Patent Rights”** means the rights and interests in and to issued patents and pending patent applications (which, for purposes of this Agreement, include certificates of invention, applications for certificates of invention and priority rights) in any country or region, including all provisional applications, substitutions, continuations, continuations-in-part, divisions, renewals, all letters patent granted thereon, and all reissues, re-examinations and extensions thereof, and all foreign counterparts of any of the foregoing.

1.72 **“Person”** means an individual, sole proprietorship, partnership, limited partnership, limited liability partnership, corporation, limited liability company, business trust, joint stock company, trust, incorporated association, joint venture or similar entity or organization, including a government or political subdivision, department or agency of a government.

1.73 **“Phase 1 Clinical Trial”** means a human clinical trial conducted for a Product in any country that would satisfy the requirements of 21 CFR 312.21(a), as amended (or its foreign equivalent).

1.74 **“Phase 2 Clinical Trial”** means a human clinical trial conducted for a Product for any Indication that would satisfy the requirements of 21 CFR 312.21(b), as amended (or its foreign equivalent) and is intended to explore one or more doses, dose response, and duration of effect, and to generate initial evidence of clinical activity and safety for such Product in the target patient population.

1.75 **“Phase 3 Clinical Trial”** means a pivotal human clinical trial conducted for a Product for any Indication that would satisfy the requirements of 21 CFR 312.21(c), as amended (or its foreign equivalent) and is intended to confirm with statistical significance the efficacy and safety of such Product with respect to a particular Indication, and is performed to obtain Marketing Authorization.

1.76 **“Pivotal Clinical Trial”** means (a) a Phase 3 Clinical Trial or, (b) a Phase 2 Clinical Trial to the extent: (i) in the United States, the protocol for that Phase 2 Clinical Trial shall have been reviewed by the FDA under its current Special Protocol Assessment Guidelines (or equivalent guidelines issued in the future), and any comments from the FDA on that protocol are incorporated in the final protocol for that Phase 2 Clinical Trial or are resolved to the FDA’s satisfaction as evidenced by further written communications from the FDA; or (ii) a process with a comparable result – acceptance of a Phase 2 Clinical Trial protocol as “potentially pivotal” – has occurred with the EMA/CHMP in the European Union; or (iii) based on the results of that Phase 2 Clinical Trial, either the FDA or the EMA has determined that the Phase 2 Clinical Trial can be considered as a pivotal clinical trial for purposes of obtaining Marketing Authorization.

1.77 **“Post Approval Clinical Trials”** means any Phase 4 clinical trial and/or any clinical trial undertaken after any Marketing Approval is granted such as Investigator sponsored study.

1.78 **“Pricing”** means the determination of Product pricing at all levels, including the Product list price (also referred to as Wholesale Acquisition Cost) and the net price in which the Product is offered to purchasers and payers (including both private sector and government entities).



1.79 **“Pricing Approval”** means, with respect to a Product in the Territory, any pricing approvals, guidance or recommendations reasonably necessary to market such Product in the Territory.

1.80 **“Process Development”** means with respect to a Product, all activities related to process development of API or Product, including the(a) raw materials selection, (b) manufacturing development, (c) test method development of raw materials, (d) in-process products, (e) intermediate products, API and Product, (f) formulation development, (g) stability studies of raw material, buffers, intermediates products, API and Product, (h) viral safety steps development and validation, (i) process robustness and process validation, (j) analytical method validation for quality controls of raw materials, intermediates, API and Product, (k) shipment validation, (l) container closure study, (m) leachable and extractable study, (n) cleaning development and validation, (o) column lifetime study, (p) filing support for regulatory submissions.

1.81 **“Product”** means any pharmaceutical or medicinal item, substance, formulation or dosage that is comprised of, or contains, a Compound (whether or not such Compound is the sole active ingredient).

1.82 **“Product Improvement”** means any Program Technology related to or concerning the Product and/or Licensed Technology, whether or not patentable, copyrightable or otherwise protectable under any intellectual property rights.

1.83 **“Program Technology”** means any Technology or Proprietary Material that is conceived and first reduced to practice (actually or constructively), by TG and/or its Affiliates or jointly by the Parties, or by any Sublicensee or by any Distributors, whether or not patentable, in the conduct of the Development Program and/or in connection with the Commercialization of Products.

1.84 **“Proprietary Materials”** means any tangible chemical, biological or physical materials that (a) are furnished by or on behalf of one Party to the other Party in connection with this Agreement, whether or not specifically designated as proprietary by such Transferring Party, or (b) that are otherwise conceived or reduced to practice by TG in the conduct of the Development Program and/or in connection with the Commercialization of Products.

1.85 **“Regulatory Approval”** means, with respect to the Territory, any approval, product and establishment license, registration or authorization of any Regulatory Authority required for the Manufacture, use, storage, importation, exportation, transport or distribution of a Product in the Territory, including any Marketing Authorization, Reimbursement Approval and Pricing Approval .

1.86 **“Regulatory Authority”** means any national, international, regional, state or local regulatory agency, department, bureau, commission, council or other governmental entity with authority over the distribution, importation, exportation, Manufacture, production, use, storage, transport, clinical testing, marketing, Pricing or sale of a Product in the Territory, including the FDA and the EMA.

1.87 **“Regulatory Filings”** means, collectively: (a) all INDs, NDAs, BLAs, NADAs, MAAs establishment license applications, Drug Master Files, and all other similar filings (including, without limitation, counterparts of any of the foregoing in the Territory); (b) all supplements and amendments to any of the foregoing; (c) all data and other information contained in, and correspondence relating to, any of the foregoing; and (d) any and all orphan drug applications.

1.88 **“Reimbursement Approval”** means, with respect to a Product in the Territory, any pricing reimbursement registration or listing on formularies and all approval necessary to an optimal introduction of the Product on the market.

1.89 **“Royalty Term”** means with respect to each Product in each country in the Territory, the period beginning on the date of First Commercial Sale of such Product in such country and ending on the later of (a) the expiration of the last to expire Valid Claim of the Licensed Patent Rights or TG Program Patent Rights in such country that Covers the composition of matter, Manufacture, use or sale of such Product, and (b) fifteen (15) years from the date of the First Commercial Sale of such Product in such country.

1.90 **Sales Target** means that proportion of the total patient market for the Product provided to Licensor by TG and expressed as either a percentage or calculated number of vials of the Product as set forth in Schedule 3.

1.91 **“Serious Adverse Event”** means any untoward medical occurrence that, at any dose, results in death, is life-threatening, requires inpatient hospitalization or prolongation of existing hospitalization, results in persistent or significant disability/incapacity, or is a congenital anomaly/birth defect, as more fully defined in 21 CFR § 312.32.

1.92 **“Significant Development Event”** means any of the following material Development events, a summary of which shall be included in any Development Report : (a) any material interaction and/or written correspondence between TG and any Regulatory Authority with respect to the Compound or a Product; (b) any material event with respect to any Clinical Trial involving the Compound and/or a Product, including any such event that is ongoing as of the date of the applicable Development Report, or is reasonably expected to occur or be initiated within twelve (12) months of the date of the applicable Development Report; and (c) any material result obtained in the conduct of any Clinical Trial involving the Compound and/or a Product during the period covered by the Development Report. For purposes of clarity, all information provided to LICENSOR with respect to Significant Development Events, shall be deemed to be Confidential Information of TG. For purposes of this definition, “material” shall be defined as any event and/or result which have had or may have a significant impact on the activities and timelines defined in the Development plan of each Product.

1.93 **sBLA**” means a Supplemental Biologic License Application, as defined in the FDCA and applicable regulations promulgated thereunder.

1.94 **“sNDA”** means a Supplemental New Drug Application, as defined in the FDCA and applicable regulations promulgated thereunder.

1.95 “**Sublicensee**” means any Third Party to which TG grants a sublicense in accordance with Section 2.2.

1.96 “**Sublicense Agreement**” means any agreement by and between a Party and a Sublicensee which is entered into in accordance with Section 2.2.

1.97 “**Sublicense Income**” means any royalties on Sublicensee Net Sales received by Licensee from its Sublicensees, excluding (a) payments made by a Sublicensee in consideration of the issuance of equity or debt securities of Licensee to the extent that the price paid for such equity does not exceed the then fair market value of such equity as determined by TG’s Board of Directors in good faith and separately confirmed by LICENSOR (it being understood that any amounts paid in excess of fair market value shall be deemed to be Sublicense Income) and (b) payments made by a Sublicensee which are used to support or fund research and development activities to be undertaken by TG or any of its Affiliates after the effective date of the Sublicense Agreement pursuant to a budget for sponsored research which has been agreed to with the Sublicensee and based on full-time equivalent or other cost-accounting methodologies that are consistent with then current industry practices.

1.98 “**Sublicense Royalties**” means, in any country in which a Sublicense Agreement is executed by TG, a payment equal to the greater of (a) \* percent (\*%) of the amount of Sublicense Income received by TG from such Sublicense Agreement in such country and (b) \* percent (\*%) of the Annual Net Sales of Products by such Sublicensee in such country.

1.99 “**Technology**” means, collectively, all inventions, discoveries, improvements, trade secrets and proprietary information and methods, whether or not patentable or patented, including without limitation: (a) methods of Manufacture or use of, and structural and functional information pertaining to, chemical compounds; (b) compositions of matter, data, formulations, processes, techniques, know-how and results (including any negative results) and (c) results of clinical trials, pre-clinical trials and other Development activities.

1.100 “**Territory**” means any country or jurisdiction in the world.

1.101 “**TG20**” means the transgenic-derived chimeric monoclonal antibody described more fully on Schedule 5 attached hereto and incorporated herein by reference.

1.102 “**TG Materials**” means any Proprietary Materials that are Controlled by TG and used by TG, or provided by TG for use, in the Development Program.

1.103 “**Third Party**” means (a) with respect to TG, any Person other than TG and its respective Affiliates, Sublicensees and Distributors and (b) with respect to LICENSOR, any Person other than its Affiliates.

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\*Confidential material redacted and filed separately with the Commission.

1.104 “**Valid Claim**” means any claim of (a) an issued unexpired patent that (i) has not been finally cancelled, withdrawn, abandoned or rejected by any administrative agency or other body of competent jurisdiction, (ii) has not been permanently revoked, held invalid, or declared unpatentable or unenforceable in a decision of a court or other body of competent jurisdiction that is unappealable or unappealed within the time allowed for appeal, (iii) has not been rendered unenforceable through terminal disclaimer or otherwise, and (iv) is not lost through an interference proceeding that is unappealable or unappealed within the time allowed for appeal; or (b) a claim of a pending Patent application, which claim has not been abandoned or finally disallowed without the possibility of appeal.

**Additional Definitions.** In addition, each of the following definitions shall have the respective meanings set forth in the section of this Agreement indicated below:

<b>Definition</b>	<b>Section</b>
Action	10.2.1(a)(ii)
Anticipated Approval Notice	5.11.1(a)
Claims	13.1
Commercialization Report	5.6
Competitive Program Transaction	2.4.2(a)
Competitive Program Transaction Notice	2.4.2(a)
Development Report	3.3.1
Diligence Failure Notice	5.3
Disclosing Party	1.24
Dispute	14.1
Effective Date	Preamble
Filing Party	10.1.3
LFB	Preamble
LFB/GTC	Preamble
LICENSOR	Preamble
LICENSOR Commercialization Option	5.1.1(b)
LICENSOR Commercialized Product	5.1.1(b)
LICENSOR Indemnities	13.1
ICH	3.3
Indemnified Party	13.3
Indemnifying Party	13.3
Infringement	10.2.1(a)(i)
Infringement Notice	10.2.1(a)(i)
Losses	13.1
Manufacturing and Supply Agreement	3.4
Non-Publishing Party	8.4
Option	Recitals
Option Agreement	Recitals
Party/Parties	Preamble
Patent Coordinator	9.4
Promotional Materials	5.9
Publishing Party	8.4
Recall	5.10
Receiving Party	1.24
Recipient Party	3.5
Results	8.4

<b>Definition</b>	<b>Section</b>
Seller	1.60
Stock Purchase Agreement	7.1
TG	Preamble
TG Diligence Failure Notice	5.3
TG Indemnities	13.2
Term	11.1
Transferring Party	3.5

## **2. LICENSE GRANTS; EXCLUSIVITY**

### **2.1 License.**

#### **2.1.1 Grant of License to TG.**

Subject to the terms and conditions of this Agreement, LICENSOR hereby grants to TG an exclusive (including with respect to LICENSOR and their respective Affiliates), worldwide, royalty-bearing license or sublicense (with respect to Licensed Technology and/or Licensed Patent Rights licensed by Third Parties to LICENSOR), including the right to grant sublicenses as provided in Section 2.2, under the Licensed Technology and Licensed Patent Rights to Develop the Compounds or Products as part of the Development Program and to Commercialize, use, have used, Manufacture, have Manufactured, supply, sell, offer to sell, import, have imported, market, and otherwise Commercialize Products in the Field.

For the avoidance of doubt, the right granted by LICENSOR to TG to Manufacture or have Manufactured the Product in the Field is subject to the terms and conditions of Sections 3.5 and 5.9.

In addition, LICENSOR hereby grants to TG a non-exclusive, worldwide, fully paid up license or sublicense, including the right to grant sublicenses as provided in Section 2.2, under the Background Patent Rights to Develop the Compounds or Products as part of the Development Program and to Commercialize, use, have used, Manufacture, have Manufactured, and supply, sell, offer to sell, import, have imported, market, and otherwise Commercialize Products in the Field.

**2.1.2 Reversion.** Should TG or its Sublicensee(s) stop the Development or the Commercialization of any Product, any and all license granted to TG by LICENSOR in respect of such Product shall automatically revert back to LICENSOR (including licenses granted according to Sections 2.1.1 and 2.1.4). In such case, TG commits to grant to LICENSOR an exclusive, royalties free license or sublicense (with respect to Rights licensed by Third Parties to TG), including the right to grant sublicenses, under the all Patent Rights Controlled by TG, Joint Improvement and Joint Patent Right necessary or useful for LICENSOR to Develop such Compounds or Product and/or use, have used, Manufacture, have Manufactured, supply, sell, offer to sell, import, have imported, market, and otherwise Commercialize such Products in the Field and in the Territory.

For the avoidance of doubt, the Development of a Product shall be considered stopped if the aggregate amount spent by TG or its Sublicensee(s) on the Development activities, up to the filing of the Drug Approval Application, is less than (\*)\$ per year for such Product for more than \* years.

For the avoidance of doubt, the Commercialization of a Product shall be considered as stopped if, after all Regulatory Approvals and Reimbursement Approvals have been granted at least in the US or in one of Major European Market Country when:

- = the aggregate amount spent by TG or its Sublicensee(s) on the Commercialization activities is less than \$\*per year for such Product; and
- = or, a minimum of \* percent (\* %) of Sales Target has not been recorded for over a period of more than \* (\*) years;

**2.1.3 Disclosure of Technology.** LICENSOR shall provide prompt written notice to TG of all Licensed Patent Rights or Licensed Technology Controlled by LICENSOR and their respective Affiliates that come under the Control of LICENSOR or their respective Affiliates after the Effective Date during the Term.

#### **2.1.4 Grant of License to Licensed Trademark.**

(a) **Ownership of Trademarks.** TG hereby acknowledges that LICENSOR has already performed a Trademarks research and has registered the Licensed Trademarks. However, TG is entitled to use and register any other trademarks, on LICENSOR behalf, and at TG own cost, for Development and Commercialization purposes.

(b) **Grant of License.** Subject to the terms and conditions of this Agreement, LICENSOR hereby grants to TG a royalty bearing an exclusive license to use the Licensed Trademark solely for the purpose of registering, using, Commercializing, importing, exporting, selling, offering for sale, and having sold the Product in the Field in the Territory on the terms and subject to the conditions set forth in this Agreement.

(c) **Covenants of TG.** TG hereby agrees that all use of the Licensed Trademark by TG, and any goodwill associated with the use of the Licensed Trademark by TG, shall inure to the benefit of LICENSOR. TG hereby agrees that nothing in this Agreement shall give TG any right, title or interest in the Licensed Trademark other than the right to use the Licensed Trademark in accordance with this Agreement. TG further agrees that it will not: (i) oppose or assist any Third Party in opposing any application for registration, re-registration or renewal of the Licensed Trademark; ii) apply for or otherwise seek (or assist any Third Party in applying for or otherwise seeking) complete or partial revocation, cancellation, invalidation or removal of the Licensed Trademark from any register or (iii) challenge or bring (or assist any Third Party in challenging or bringing) any proceeding or action in relation to the use or ownership of the Licensed Trademark.

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\*Confidential material redacted and filed separately with the Commission.

(d) **Registration of Licensed Trademark.** LICENSOR shall have the sole right to apply for registration of the Licensed Trademark in the Territory to the extent such registration has not already been obtained by LICENSOR at the Effective Date and for paying all applicable fees, including all registration and application fees and renewal fees. TG agrees that it will not apply for the registration of the Licensed Trademark (or any mark confusingly similar thereto) anywhere in the world.

(e) **Use of Licensed Trademark.** TG shall use the Licensed Trademark solely (i) in the manner specified in this Agreement and (ii) in connection with the Product and not for any other goods or services. TG agrees not to use any other trademark or service mark in combination with the Licensed Trademark without the prior written consent of GTC. TG, at its sole cost and expense, will provide to LICENSOR representative samples of all products, product packaging, literature, brochures, signs, and advertising materials prepared by TG which bear, display, or include any reference to the Licensed Trademark, and TG shall obtain the written approval of LICENSOR with respect to all such materials prior to the use thereof. TG will not distribute or otherwise use any samples or materials or other media bearing or displaying the Licensed Trademark unless and until LICENSOR has notified TG in writing of LICENSOR's approval, which approval shall not be reasonably withheld.

(f) **Notice.** TG shall promptly notify LICENSOR (i) of any claim, threat, lawsuit, filing, or other notice or allegation of infringement of which it is aware regarding TG's use of the Licensed Trademark and/or (ii) if it becomes aware of the existence of any Third Party applications to register anywhere in the world any mark or name which consists of or incorporates the Licensed Trademark. LICENSOR shall have the sole right, but not the obligation, to bring infringement, unfair competition, or other claims or proceedings involving the Licensed Trademark and TG hereby acknowledges and agrees that it shall have no such right. If requested by LICENSOR, TG shall cooperate with LICENSOR in connection with any such action.

## 2.2 **Right to Sublicense.**

2.2.1 **Sublicense.** TG shall have the right to grant sublicenses under the licenses granted to it under Section 2.1.1 to any Sublicensee; with LICENSOR prior written notification provided, that, (a) the terms of each such sublicense shall be consistent with the rights and obligations of TG under the Agreement; (b) it shall be a condition of any such sublicense that such Sublicensee agrees to be bound by the terms of this Agreement applicable to the Development and Commercialization of Products in the Field in the Territory; (c) TG shall provide LICENSOR with a copy of any such Sublicense Agreement within ten (10) days of the execution of each such Sublicense Agreement; and (d) TG shall not be relieved of its obligations pursuant to this Agreement as a result of such sublicense, except to the extent such obligations are satisfactorily performed by any such sublicense.

2.2.2 **Grant of Rights to Distributors.** TG or any of its Affiliates and Sublicensees shall have the right, with LICENSOR prior written notification, to appoint one or more Distributors for Products in the Territory. TG shall provide LICENSOR with a copy of each such agreement with any Distributor within ten (10) days of execution of such agreement.

### 2.3 No Other Rights.

2.3.1 TG shall have no rights to use or otherwise exploit Licensed Technology, Licensed Patent Rights, or LICENSOR Proprietary Materials, and LICENSOR shall have no rights to use or otherwise exploit TG Technology, TG Patent Rights or TG Proprietary Materials, in each case, except as expressly set forth in this Agreement.

### 2.4 Exclusivity.

2.4.1 **Exclusivity Obligation.** During the Term of this Agreement, TG shall not, and shall cause each of its Affiliates to not, conduct any activity, either on its own, or with, for the benefit of, or sponsored by, any Third Party, that, in any case, involves the research, development or commercialization of any other anti CD 20 monoclonal antibody, or any compound that embodies or is derived from any anti CD 20 monoclonal antibody, for use in the Field that is competitive with or adversely affects the Development or Commercialization of any of the Compounds or Products, except hereunder in connection with the research, Development and/or the Commercialization of the Compounds and Products. Notwithstanding the foregoing, at TG's request, LICENSOR may allow TG to Develop and Commercialize all combinations with the Compounds and Products which would be benefit in improving the Development and/or the Commercialization of the Compounds and Products, such consent to not be unreasonably withheld.

#### 2.4.2 Competitive Program Transaction.

(a) Notice. If at any time during the Term, TG grants a sublicense or other rights to any Third Party to utilize any Technology or Patent Rights Controlled by TG or any of its Affiliates for the Development or Commercialization of any of the Compounds or Products, or TG undergoes a Change of Control, or if TG or any of its Affiliates acquires all or substantially all of the assets or common stock of a Third Party (whether by asset or stock purchase, merger, consolidation, share exchange or other similar transaction) and, in any such case, such Third Party or any of such Third Party's Affiliates (in the case of a Third Party Sublicensee or a Third Party acquirer of TG), has a Competitive Program (a "**Competitive Program Transaction**"), TG shall provide LICENSOR with prompt written notice describing such Competitive Program Transaction in reasonable detail which shall include a description of the nature of such Competitive Program (the "**Competitive Program Transaction Notice**"). Such Competitive Program Transaction Notice shall be provided by TG prior to execution of such agreement, if permitted under Applicable Laws and not prohibited by the terms of any agreement between TG or any of its Affiliates and any Third Party, and otherwise as soon as practicable thereafter and, in any event, not later than promptly following the consummation of the transaction contemplated by such agreement.

(b) Meeting of the Parties. As soon as practicable following LICENSOR' receipt of any Competitive Program Transaction Notice, the Parties shall meet to discuss whether, notwithstanding any provision hereof, such Competitive Program would continue following such Competitive Program Transaction. In any such meeting the Parties will review any restrictions applicable to such Competitive Program that may prevent its combination with this Agreement, and other issues that may impact the potential combination of such Competitive Program with this Agreement.



(c) Integration of Competitive Program. If TG and LICENSOR mutually agree that such Competitive Program may be integrated into this Agreement, then within \* (\*) \* after such determination the Parties shall agree upon an amendment to this Agreement that will provide either (X) (i) that each compound or product that is part of the Competitive Program would be deemed to be a Compound, whether or not such compound or product meets the standards or criteria hereunder for a Compound and (ii) the Parties' rights and obligations under this Agreement will apply in all relevant respects to any such deemed Compounds (including the payment of the milestones, royalties and Sublicense Royalties set forth in this Agreement) or (Y) that the Development and Commercialization diligence standards of this Agreement shall be revised to ensure that the effort and resources that the Third Party applies (or TG, if TG is the surviving entity) applied to the Competitive Program shall be equally applied to the Development and Commercialization of the Compounds and Products.

(d) Termination/Divesting of Competitive Program. If the Parties are unable to reach agreement on the terms pursuant to which the integration of any Competitive Program into this Agreement would occur, TG shall have an additional \* (\*) \* during which it shall determine whether to (i) terminate the Competitive Program or (ii) Divest itself of the Competitive Program. If TG notifies LICENSOR in writing that it will terminate such Competitive Program, TG shall promptly terminate such Competitive Program as quickly as possible with due regard for patient safety and the rights of any subjects that are participants in any clinical studies relating to such Competitive Program and Applicable Laws, and in any event within \* (\*) \* after its delivery of such written notice to LICENSOR. If TG notifies LICENSOR in writing that it will Divest itself of the Competitive Program, then it shall do so as promptly as practicable but in any event on or before \* (\*) \* from the date of such notice; provided, that, during the period during which such Divestiture is pending, TG shall maintaining separate teams working on such Competitive Program and this Agreement. If TG does not notify LICENSOR in writing at the conclusion of the \* (\*) \* period provided above that TG will terminate or Divest itself of such Competitive Program, or if TG does so notify LICENSOR but fails to terminate or Divest the Competitive Program within the periods provided above, LICENSOR shall have the right to immediately terminate this Agreement by providing written notice to TG.

### 3. DEVELOPMENT OF PRODUCTS

For the sake of clarity, in this Section 3, TG means TG, and where applicable, its Affiliates, Sublicensees and Distributors.

#### 3.1 Development Program.

3.1.1 Objective of Development Program. The objective of the Development Program shall be the Development by TG of the Compounds and Products in the Field in order to obtain Marketing Authorization for such Products in the Field in the Territory as promptly as practicable.

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\*Confidential material redacted and filed separately with the Commission.

**3.1.2 Responsibility for Development.** TG shall have the sole right and responsibility for, and shall have full control and authority over, at its sole cost and expense (including without limitation all costs attributable to the Manufacture and supply of Product for the conduct of Clinical Trials), the Development of Products in the Territory, including conducting all Development activities and establishing the methods and means by which it performs such activities under this Agreement. TG shall have the right to engage Third Party contractors to perform any of its Development activities in the Territory, subject to the execution by each such Third Party contractor of an agreement containing provisions with respect to confidentiality and assignment of Technology that are consistent with, and comparable in scope to, Articles 7 and 8 of this Agreement. Notwithstanding the foregoing, from time to time during the Term, TG may request in writing that LICENSOR perform certain Development activities as part of the Development Program. If TG requests that LICENSOR provide Development activities, LICENSOR will promptly provide a timeline and budget for providing such services and will use Commercially Reasonable Efforts to provide such services in accordance with the timeline and budget. Such services shall be provided in accordance with the terms set forth in the development services and manufacturing agreement (the “Development **Services and Manufacturing Agreement**”) which shall be attached in Exhibit A as soon as it is executed by the Parties. As described more fully in the Services Agreement, LICENSEE shall provide such services, and TG shall pay for such services, based on LICENSOR’S \*; provided, that, (a) during the first six (6) months following the Effective Date LICENSOR shall provide such services free of charge until such date as an aggregate of \* (\$\*) of such services have been provided (\*) and (b) for the remainder of the term of the Services Agreement, TG shall pay LICENSOR a service fee for such services equal to LICENSOR’S \* percent (\*%).

**3.2 Development Diligence.**

TG, and/or its Affiliates, Sublicensee, Distributors shall use Commercially Reasonable Efforts during the Term to (a) conduct Development activities with respect to the Compounds and Products and (b) commit such resources (including employees, consultants, contractors, facilities, equipment and materials) as it deems necessary to conduct such Development activities. Without limiting the foregoing, TG’s efforts described in this Section 3.2 shall comply with the diligence obligations set forth in the Hadam License Agreement.

**3.3 Preparation of Development Plan.**

An initial Development Plan shall be prepared by TG for each Product and submitted to the LICENSOR for its information no later than \* (\*)\* after the Effective Date and attached hereto as Schedule 1. During the period commencing on and after such date and continuing for the remainder of the Term, TG shall prepare and provide to the LICENSOR an additional Development Plans detailing any amendments, modifications and/or updates to any existing Development Plan, within \* (\*)\* of the end of each Calendar Year. TG shall seek health authority scientific advice to determine the pivotal studies deemed necessary for product registration at the earliest possible time. The advice received should be reflected in updated Development Plans. In the event of any conflict between the terms of the Development Plan and the terms and conditions of this Agreement, the terms and conditions of this Agreement shall prevail.

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\*Confidential material redacted and filed separately with the Commission.

### 3.4 Compliance.

TG and/or its Affiliates, Sublicensee, Distributors shall perform its obligations under the Development Program in good scientific manner and in compliance in all material respects with all Applicable Laws. For purposes of clarity, with respect to each Development activity performed that will or would reasonably be expected to be submitted to a Regulatory Authority in support of a Regulatory Filing or Drug Approval Application, TG shall not willfully fail to comply in all material respects with GLPs, GMPs or Good Clinical Practices (or, if and as appropriate under the circumstances, International Conference on Harmonization (“ICH”) guidance or other comparable regulation and guidance of any Regulatory Authority in the Territory).

**3.4.1 Records; Reports.** TG and/or its Affiliates, Sublicensees, Distributors shall (a) maintain records of its activities under the Development Program in sufficient detail and in good scientific manner appropriate for patent and regulatory purposes, which shall fully and properly reflect all work performed and results achieved in the performance of the Development Program and (b) keep LICENSOR regularly informed of the progress of its efforts to Develop Products in the Territory, including without limitation, providing LICENSOR with an annual development report (each, a “**Development Report**”) (to be delivered with each annual update to the Development Plan) that summarizes: (a) significant Development activities conducted during the preceding Calendar Year and results obtained with respect to Compounds and Products (including the status of all Clinical Trials), (b) Significant Development Events applicable to the Compounds and/or Products, (c) a summary of all Program Technology conceived or reduced to practice by TG over such period, (d) a non-binding estimate of the expected timing of any milestone events with respect to Products and (e) such other information that TG has in its possession as may be reasonably requested from time to time by LICENSOR. The Development Plan and each Development Report shall be deemed TG Confidential Information. Following the commencement of Commercialization, Development Reports will no longer be required and will be replaced by the annual Commercialization Report as described in Section 5.7.

### 3.5 Process Development services; Supply of Compounds for Development.

LICENSOR’s and TG’s rights and responsibilities pertaining the Process Development and the supply of the Compound for the Development shall be governed by Section 6 below.

### 3.6 Use of Proprietary Materials.

From time to time during the Term, either Party (the “Transferring Party”) may supply the other Party (the “Recipient Party”) with Proprietary Materials of the Transferring Party for use in the Development Program. In connection therewith, each Recipient Party hereby agrees that (a) it shall not use such Proprietary Materials for any purpose other than exercising its rights or performing its obligations hereunder; (b) it shall use such Proprietary Materials only in compliance with all Applicable Laws; (c) it shall not transfer any such Proprietary Materials to any Third Party without the prior written consent of the Transferring Party, except for the transfer of Products for use in Clinical Trials or as otherwise expressly permitted hereby; (d) the Recipient Party shall not acquire any right, title or interest in or to such Proprietary Materials as a result of such supply by the Transferring Party; and (e) upon the expiration or termination of the Development Program, the Recipient Party shall, if and as instructed by the Transferring Party, either destroy or return any such Proprietary Materials that are not the subject of the grant of a continuing license hereunder.

#### 4. REGULATORY ACTIVITIES

For the sake of clarity, in this Section 4, TG means TG, and where applicable, its Affiliates, Sublicensees and Distributors.

##### 4.1 Responsibility for Regulatory Filings.

Subject to the remainder of this Article 4, (a) TG shall have the sole right and responsibility, at its sole cost and expense, for preparing and filing all Regulatory Filings and Drug Approval Applications required to Develop Compounds and Commercialize Products in the Territory in its own name; (b) all Regulatory Approvals for Products shall be solely owned by TG; and (c) TG shall have the sole right and responsibility for (i) maintaining all Regulatory Filings and/or Marketing Authorizations and (ii) reporting to any Regulatory Authority within the Territory all Adverse Events and Serious Adverse Events related to any Product if and to the extent required by Applicable Laws. To maximize market protection of Product, TG shall file for any orphan drug designations as appropriate within requisite timeframes prior to the submission of any Marketing Authorization Application. Within twelve (12) months following the QA approval of the Study Report of the last Clinical Trial as per the Development Program, TG shall file, or cause to be filed, before the Regulatory Authorities in the Territory, all authorization and registration applications required for the promotion, marketing, distribution and sale of Product in the Territory. TG shall exercise Commercially Reasonable Efforts to obtain Marketing Authorizations with respect to the Product. Failure to meet this obligation will be considered a material breach of the Agreement and LICENSOR shall have the right to terminate the Agreement for breach of TG in accordance with Section 11.2.2.

##### 4.2 Disclosure; Right of Access.

Upon request from LICENSOR, TG shall promptly provide LICENSOR with (a) a list of all sites at which Clinical Trials with respect to Products are being conducted by or on behalf of TG; (b) copies of all Clinical Trial protocols and Investigator's Brochures with respect to such Clinical Trials; and (c) access to all data (including non clinical and Clinical Data), results and information found in TG's regulatory files produced by or on behalf of TG, or any of its Affiliates or Sublicensees, in connection with the conduct by TG of Development activities in its original format, without translation except that translations shall be provided at no charge where such translations are produced in the ordinary course of business. LICENSOR shall maintain the confidentiality of such data, results and information and shall only have the right and license to use such data (including Clinical Data), results and information provided by TG under this Section 4.2 for the performance of its obligations and exercise of its rights under this Agreement,

### **4.3 Disclosure of Certain Events.**

The Parties hereby agree to report to each other all Adverse Events and/or Serious Adverse Events with respect to the Product (whether occurring in any Clinical Trial conducted with regard to the Product or in connection with the commercialization of the Product in any country), within timeframes consistent with its reporting obligations under Applicable Laws and in any event, if either Party is actively conducting a clinical trial under its own IND or commercializing the Product under its own Marketing Authorization, then the other Party shall report such events no later than three (3) business days for Serious Adverse Event, and quarterly for Adverse Events, which report shall, in each case, include the circumstances and nature of such Serious Adverse Event or Adverse Event as required for reporting under Applicable Laws. In addition, to the extent requested by either Party, the other Party shall promptly provide to the requesting Party any other information or materials that the requesting Party may require to provide to any Regulatory Authority with respect to any such Adverse Event or Serious Adverse Event. All disclosures made under this Section 4.3 shall be deemed Confidential Information of the disclosing Party; provided, that, the Party receiving such disclosures may, upon written notice to the disclosing Party, report the occurrence, circumstances and nature of such Adverse Event and/or Serious Adverse Event to any Regulatory Authority solely insofar as such reporting is required to comply with Applicable Laws.

### **4.4 Communication with Regulatory Authorities in the LICENSOR Commercialization Territory.**

**4.4.1 Participation in Meetings.** TG shall use reasonable efforts to provide LICENSOR with at least thirty (30) days advance notice of any meeting with any Regulatory Authority regarding any Marketing Authorization for any Product in the LICENSOR Commercialization Territory and LICENSOR may elect to send one (1) person reasonably acceptable to TG to participate as an observer (at LICENSOR' sole cost and expense) in such meeting.

**4.4.2 Access; Notice of Meetings.** TG shall use reasonable efforts to provide LICENSOR with at least thirty (30) days' advance notice of any meeting with any Regulatory Authority in the LICENSOR Commercialization Territory regarding any Drug Approval Application for Products and/or any such audit or inspection conducted by any Regulatory Authority at any site at which Clinical Trials with respect to Products are being conducted and LICENSOR may elect to send representatives reasonably acceptable to TG to participate as an observer in such meeting at LICENSOR' sole cost and expense.

## **5. COMMERCIALIZATION OF PRODUCTS**

For the sake of clarity, in this Section 5, TG means TG, and where applicable, its Affiliates, Sublicensees and Distributors.

### **5.1 Commercialization Plan.**

The initial Commercialization Plan shall be prepared by TG and submitted to LICENSOR for information with the Anticipated Approval Notice and attached hereto as Schedule 2. On and after such date and continuing for the remainder of the Term, additional Commercialization Plans and/or amendments, modifications and/or updates to the Commercialization Plan, shall be prepared by TG and submitted to LICENSOR for its review within thirty (30) days of the end of each Calendar Year.

## 5.2 Responsibility for Commercialization of Products.

Subject to Section 5.11 below, TG shall have the primary right and responsibility for, and shall have primary control and authority over, at its sole cost and expense, (a) all aspects of the Commercialization of Products in the Field in the Territory including the sole responsibility for booking sales of Product and for all returns, charge-backs and rebates with respect to Products; and (b) the conduct of all pre-marketing, marketing, Branding, promotion, sales, distribution, import and export activities (including securing pricing, reimbursement, sales and marketing and conducting any post-marketing trials or post-marketing safety surveillance and maintaining databases) applicable to the Commercialization of Products in the Field and in the Territory.

## 5.3 Commercialization Diligence.

TG shall use Commercially Reasonable Efforts during the Term to Commercialize Products for all approved Indications in the Field and in the Territory. Without limiting the foregoing, (a) commencing no later than ninety (90) days prior to the estimated date of First Commercial Sale of the Product, TG shall conduct pre-marketing activities in the Territory with respect to the Product and (b) following receipt of Marketing Authorization with respect to the Product in the Territory, TG shall initiate and conduct such promotional activities determined by TG as may be required to develop a commercial market for, launch and Commercialize the Product (including through direct conduct with key opinion leaders) in the Territory. Without limiting the foregoing, TG's efforts described in this Section 5.3 shall comply with the diligence obligations set forth in the Hadam License Agreement. In addition, TG, shall establish and maintain a well trained sales force for the Product, (together with a well-trained support staff) adequate to service all the customers of TG and to keep the sales force knowledgeable and fully informed as to the Product; maintain an effective distribution system for the Product in the Territory; transport and store the Product to preserve its quality in accordance with pre-determined QA requirements; obtain and maintain all licenses, approvals and permits in the Territory necessary for TG to perform its obligations under this Agreement; establish and maintain suitable systems and records to enable a recall of Product in a timely, efficient and accurate manner and otherwise in accordance with applicable laws and regulations in the Territory; abide by all applicable rules and regulations relating to sales, marketing and reimbursement; ensure that no Product shipped by TG is adulterated or misbranded; maintain adequate control over the physical security of the Product; Cause all Affiliates, sublicensees and subcontractors of TG to comply with the above.

## 5.4 Failure to Satisfy Commercialization Diligence Obligations.

LICENSOR shall have the right, in its sole discretion, to provide TG with written notice if it reasonably believes TG has failed to satisfy its Commercialization diligence obligations under this Agreement (a "**TG Diligence Failure**"). Such written notice (a "**Diligence Failure Notice**") shall set forth in reasonable detail the nature of the alleged failure and shall request written justification, in the form of detailed reasons that would support the proposition that TG has satisfied such diligence obligations. TG shall provide such written justification to LICENSOR within thirty (30) days after receipt of such Diligence Failure Notice and shall identify any Commercially Reasonable Justifications (as defined below) applicable thereto. If TG fails to provide LICENSOR with a Commercially Reasonable Justification within such thirty (30) day period TG shall have an additional (90) day period to cure such failure. During that period a penalty equal to the \* shall accrue on a monthly basis, to the benefit of LICENSOR. Should TG's failure continue within this additional period, TG shall continue to pay the penalty abovementioned and LICENSOR reserves the right in its discretion to, in addition to all damages caused in relation thereof, convert the licenses and rights granted under any or all of Section 2.1 from exclusive licenses to non-exclusive licenses only as such licenses and rights apply to such Product. Should TG's failure continue within an additional hundred eighty (180) day period, TG shall continue to pay the penalty abovementioned and LICENSOR reserves the right in its discretion to, in addition to any other remedies it may have all damages caused in relation thereof, terminate any or all of the licenses and rights granted under Section 2.1 hereof with respect to the Product that is the subject of the Diligence Failure Notice termination or conversion, as the case may be, shall be at the discretion of LICENSOR and be effective immediately upon issuance by LICENSOR of written notice to TG specifying the remedy that LICENSOR is electing to exercise under this Section 5.4.

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\*Confidential material redacted and filed separately with the Commission.

For purposes of this Section 5.4, “**Commercially Reasonable Justification**” means the existence or occurrence of one or more of the following events or justifications: (i) the occurrence of an event of Force Majeure; (ii) the adoption by a Regulatory Authority of any one or more regulations that become effective after the Effective Date and that materially affect the Development or clinical testing of the Product or the process for obtaining any Regulatory Approval for the Product; and (iii) the occurrence of any event, condition or circumstance (including an event, condition or circumstance related to the manufacture or supply of the Product (or any material component thereof) for clinical studies or a regulatory action by any Regulatory Authority) with respect to the Product (or any material component thereof) that (A) involves the safety, toxicity, efficacy or pharmacokinetics of the Product or (B) prevents the use of the Product in humans (including, without limitation, as a result of patent or other blocking rights) and, in the case of clauses (A) or (B) above, is not attributable to (1) a breach by TG of any obligation under this Agreement, (2) the failure of TG to comply with any protocol, development plan or Applicable Laws with respect to the development of the Product, or (3) any grossly negligent or willful act or omission of TG; or (C) that the TG Diligence Failure is caused by TG’s failure to take actions that would be in excess of Commercially Reasonable Efforts; provided, that, in any such case, TG shall use Commercially Reasonable Efforts to mitigate the effect and duration of any such acceptable delay with respect to the Product that is the subject of the Diligence Failure Notice.

## 5.5 **Failure to achieve Sales Targets**

**5.5.1 Initial Period.** For the \* following the date of First Commercial Sale (the "Initial Period") TG shall achieve the Sales Target. If TG fails to achieve \* percent (\*%) of the Sales Target by completion of the Initial Period, TG shall, within \* (\*)\*, pay to LICENSORS a sum equal to \*. For purposes of this Agreement, “Commercial Years” means the period commencing on the date of First Commercial Sale of a Product and ending on the anniversary thereof and thereafter each successive period of twelve (12) months.

**5.5.2 Subsequent Periods.** For Commercial Years subsequent to the Initial Period TG shall achieve the Sales Target. If TG fails to achieve \* percent (\*%) of the Sales Target for any Commercial Year subject to the Initial Period, TG shall, within \* (\*)\* pay to LICENSOR a sum equal to \*.

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\*Confidential material redacted and filed separately with the Commission.

In addition to the above, if TG fails to achieve \* (\*%) of the Sales Target for \* (\*) \* Commercial Years, LICENSOR shall have the right to terminate this Agreement with respect to countries within the Territory \*. In the case where LICENSOR exercises its rights to terminate this Agreement, LICENSOR shall provide six (6) months prior notice of termination and purchase back any Product stock held by TG valued at the commercial price. If during the above mentioned 6 month period, TG achieves \* for such six-month period, then TG shall be deemed to have cured the breach and the termination shall be null and void.

#### **5.6 Compliance.**

TG shall use its Commercially Reasonable Efforts to Commercialize the Products in compliance in all material respects with all Applicable Laws.

#### **5.7 No Unauthorized Sales.**

TG shall not, and shall not permit its Affiliates and not permit Sublicensees or Distributors to, distribute, market, promote, offer for sale or sell the Product to any Third Party in any country that TG, or its Affiliates, Sublicensees or Distributors, as applicable, reasonably believes is reasonably likely to engage in an unauthorized distribution, marketing, promotion, or sale of the Product outside the country of purchase.

#### **5.8 Records; Reports.**

TG shall (a) maintain records of its Commercialization activities under this Article 5 in sufficient detail, which shall fully and properly reflect all work done and results achieved in the Commercialization of Products and (b) following the commencement of Commercialization of the Products provide LICENSOR with annual written reports (each, a “**Commercialization Report**”) which shall (i) summarize TG’s efforts to Commercialize Products, (ii) identify the Regulatory Filings and Drug Approval Applications with respect to such Product that TG or any of its Affiliates or Sublicensees have filed, sought or obtained in the prior twelve (12) month period or reasonably expect to make, seek or attempt to obtain in the following twelve (12) month period and (iii) summarize all Clinical Data generated by TG with respect to Products. Commencing no later than ninety (90) days from the date of receipt by TG of the first Marketing Authorization for each Product and on each anniversary thereof until the expiration of the Royalty Term applicable to such Product, each such Commercialization Report shall also include (i) an outline of the key sales and marketing activities that TG reasonably expects to conduct with respect to Product in the Territory, (ii) a non-binding estimate of projected sales of Product in the Territory for the subsequent three (3) Calendar Year period and (iii) such additional information that it has in its possession as may be reasonably requested by LICENSOR regarding the Commercialization of any Product, which request shall not be made more than once each Calendar Year. The Commercialization Plan and Commercialization Report can be provided as one document.

#### **5.9 Supply of Product for Commercialization.**

LICENSOR’s and TG’s rights and responsibilities pertaining the supply of the Compound for the Commercialization shall be governed by Section 6 below.

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\*Confidential material redacted and filed separately with the Commission.



## 5.10 Product Recalls.

In the event that any Regulatory Authority issues or requests a recall or takes similar action in connection with a Product in the Territory, or in the event TG reasonably believes that an event, incident or circumstance has occurred that may result in the need for a recall, market withdrawal or other corrective action regarding a Product in the Territory (each, a **“Recall”**), TG shall promptly advise LICENSOR thereof by e-mail, telephone or facsimile. Following such notification, TG shall have the sole right to decide, and have control of, whether to conduct a recall or market withdrawal (except in the event of a recall or market withdrawal mandated by a Regulatory Authority, in which case it shall be required) or to take other corrective action in the Territory and the manner in which any such recall, market withdrawal or corrective action shall be conducted; provided, that, TG shall keep LICENSOR reasonably informed regarding any such Recall. All expenses incurred by TG in connection with any such Recall (including, without limitation, expenses for notification, destruction and return of the affected Product and any refund to customers of amounts paid for such Product) shall be the sole responsibility of TG.

## 5.11 Grant of Commercialization Option to LICENSOR.

### 5.11.1 Exercise of Commercialization Option.

(a) Notice of Anticipated Regulatory Approval. TG shall give LICENSOR written notice at least one hundred twenty (120) days prior to the anticipated date of receipt of Marketing Authorization for a Product for the first Indication by the EMA or the applicable Regulatory Authority in the LICENSOR Commercialization Territory (the **“Anticipated Approval Notice”**).

(b) Exercise of Commercialization Option. Commencing on the date of receipt by LICENSOR of the Anticipated Approval Notice and continuing for a period of ninety (90) days (such period, the **“Product Candidate Option Period”**), LICENSOR shall have the exclusive option (the **“LICENSOR Commercialization Option”**), in its sole discretion, to have the exclusive right to Commercialize any Product in the LICENSOR Commercialization Territory by providing written notice to TG, which notice shall identify the Product (each, such Product, a **“LICENSOR Commercialized Product”**). If LICENSOR exercises the Commercialization Option with respect to any Product:

(i) the Parties shall, within ninety (90) days of the date of such exercise, negotiate and execute a Commercialization and License Agreement for such LICENSOR Commercialized Product which Commercialization Agreement shall, to the extent possible, be in substantially the same form as this Agreement;

(ii) the license granted to TG pursuant to Section 2.1.1 shall be deemed to have been amended such that LICENSOR shall retain the exclusive right under the Licensed Technology and/or Licensed Patent Rights, including the right to grant sublicenses to its Affiliates, to Commercialize, use, have used, Manufacture, have Manufactured, supply, sell, offer to sell, import, have imported, market, and otherwise Commercialize the LICENSOR Commercialized Product in the Field and in the Commercialization Territory;

(iii) the definition of Territory for purposes of this Agreement shall be deemed to have been amended to specifically exclude the countries within the LICENSOR Commercialization Territory; and

(iv) TG shall be deemed to have automatically granted to LICENSOR an exclusive (including with respect to TG and its Affiliates), mirror royalty-bearing license or sublicense with respect to TG Materials, TG Confidential Information, and all Technology Patent Rights Controlled by TG (including the right to grant sublicenses under the such Technology and Patent Rights) to Commercialize, use, have used, supply, sell, offer to sell, import, have imported, market, and otherwise Commercialize the LICENSOR Commercialized Product in the Field and in the LICENSOR Commercialization Territory. For the avoidance of doubt, the Royalty rate due by LICENSOR to TG shall be equal to the amount due by TG to LICENSORS on sales recorded in France and Belgium.

(c) **Cooperation; Failure to Reach Agreement.** In connection with LICENSOR'S consideration of the exercise of a LICENSOR's Commercialization Option with respect to each Product, TG shall provide LICENSOR with any information Controlled by TG and reasonably requested by LICENSOR that is necessary or useful to LICENSOR in determining whether to exercise such LICENSOR Commercialization Option.

## 6. SUPPLY OF THE COMPOUND

### 6.1 Supply of LFB-R603 for Development and Commercialization.

(a) Where the cell culture Manufacturing capacity requested for Manufacturing and supply of LFB R603 for Clinical Trials is less than or equal to 1 000 liter per batch, LICENSOR shall have the exclusive right and responsibility to provide, directly or indirectly, Manufacturing services to TG and Manufacture supply of LFB-R603 as required for the Development and Commercialization of LFB-R603 .. In this case, LICENSOR will be responsible for all aspects of Manufacturing and facilities and TG shall be responsible for Process Development (alone or with LICENSOR through the Development Services and Manufacturing Agreement).

LICENSOR shall use its Commercially Reasonable Effort to provide Manufacturing services to TG and Manufacture supply of LFB-R603 as required for the Development and Commercialization of LFB-R603 when and as required by TG and shall take such actions as shall be reasonably required to provide TG with supplies of LFB R603 for analytical development, non-clinical toxicology, pre-clinical activities and clinical activities. \* and shall be pursuant to the Development Services and Manufacturing Agreement.

LICENSOR shall provide a preliminary pharmaceutical development plan including major milestones and provisional budget within sixty (60) days following the execution of the agreement, and a detailed pharmaceutical development plan, which shall be an appendix of the Development Services and Manufacturing Agreement, within six (6) months following the execution of this Agreement.

(b) Where the cell culture Manufacturing capacity requested for Manufacturing and supply of LFB R603 for Clinical Trials is higher than <sup>\*</sup>, LICENSOR shall no longer have the exclusive right and responsibility to Manufacture directly or indirectly LFB R603 for Clinical and Commercialization under. In this case, if LICENSOR is not appointed by TG for Manufacturing and supply of LFB R603, TG shall pay to LICENSOR the extra-royalty under section 7.3.4

For the sake of clarity, if LICENSOR provides, directly or indirectly, the supply of LFB R603 for Pivotal Clinical Trials, LICENSOR or its Affiliates shall have the exclusive right and responsibility to provide Manufacturing services to TG and Manufacture and supply LFB R603 as required for the Commercialization in the Territory. In such case the extra-royalty under Section 7.3.4 shall not apply

## **6.2 Supply of TG20 for Development and Commercialization.**

LICENSOR and/ or its Affiliates shall have the exclusive right and responsibility to provide Manufacturing services to TG and Manufacture supply of TG20. LICENSOR shall provide a preliminary pharmaceutical development plan including major milestones and provisional budget within sixty (60) days following the execution of the agreement, and a detailed pharmaceutical development plan, which shall be an appendix of the Development Services and Manufacturing Agreement, within six (6) months following the execution of this Agreement. LICENSOR will be responsible for all aspects of manufacturing and facilities, including any additional capacity required at its own expense and TG shall be responsible for Process Development (alone or with LICENSOR through the Development Services and Manufacturing Agreement). Since LICENSOR and/or its Affiliates shall be a sole supplier of TG20 for the foreseeable future, LICENSOR shall use its Commercially Reasonable effort to provide Manufacturing services to TG and Manufacture supply of TG20 as required for the Development and Commercialization of TG 20 when and as required by TG and shall take such actions as shall be reasonably required to provide TG with supplies of TG20 for analytical development, non-clinical toxicology, pre-clinical activities and clinical activities. All supplies of Compound and Product for Clinical Trials supplied by LICENSOR shall be billed to TG at <sup>\*</sup>.

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<sup>\*</sup>Confidential material redacted and filed separately with the Commission.

Prior to commencing Phase 3 Clinical Trials, parties will enter into a Commercial Supply Agreement, which shall be attached in Exhibit B as soon as it is executed by the Parties and which shall include such customary terms of such agreements and shall include the payment by TG to LICENSOR \* percent (\*%). As part of such commercial supply agreement, LICENSOR and TG shall establish the Joint Pharmaceutical, development and manufacturing Committee to serve as a forum for information, coordination communication and forecasting of supply needs between the Parties with respect to the Manufacturing of the Products by the LICENSORS and Commercialization by TG of the Compound and/or Products in the Territory

**6.3 Contractual conditions for Process Development Services and supply of Compounds for Development.**

For each Product, Process Development Services and Supply of Compounds for Development shall be performed in accordance with the terms set forth in the Development Services and Manufacturing Agreement.

**7. PAYMENTS**

**7.1 Issuance of Equity.**

In consideration for the rights granted to TG hereunder, TG hereby agrees to issue to LICENSOR, on the date hereof, the shares listed on Schedule 8., on the terms and subject to the conditions set forth in the stock purchase agreement attached hereto as Exhibit C (the “**Stock Purchase Agreement**”). Such Stock Purchase Agreement contains a right of LICENSOR to appoint one (1) member to the Board of Directors of TG.

**7.2 Milestone Payments.**

**7.2.1 Development and Regulatory Milestones.** TG shall make the following non-refundable, non-creditable payments to LICENSOR upon the occurrence of each of the following milestone events for the first Product that achieves the corresponding milestone event (unless otherwise provided below):

	<b>Milestone Event</b>	<b>Milestone Payment</b>
1.	Completion of the first Phase 3 Clinical Trial for a Product	\$*
2.	the earliest of the completion of the first Pivotal Clinical Trial and/or of the second Phase 3 Clinical Trial for a Product	\$*
3.	Acceptance of the first Drug Approval Application for a Product by the FDA	\$*
4.	Receipt of the first Marketing Authorization for a Product by the FDA	\$*
5.	Acceptance of the first Drug Approval Application for a Product by the EMA or the applicable Regulatory Authorities in any Major Market Country	\$*
6.	Receipt of the first Marketing Authorization for a Product by the EMA or the applicable Regulatory Authorities in any Major Market Country	\$*

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\*Confidential material redacted and filed separately with the Commission.

**7.2.2 Notice and Payment of Milestones.**

(a) **Notice of Milestone Events.** TG shall provide LICENSOR with prompt written notice upon the occurrence of each milestone event set forth in Section 7.2.1. In the event that, notwithstanding the fact that TG has not given such a notice, LICENSOR believes any such milestone event has occurred, it shall so notify TG in writing and shall provide to TG data, documentation or other information that supports its belief. Any dispute under this Section 7.2.2(a) that relates to whether or not a milestone event has occurred shall be resolved in accordance with Section 14.1.

(b) **Single Milestone Payments.** TG shall make a milestone payment corresponding to each of the foregoing milestone events only once under Section 7.2.1, regardless of (i) the number of Products that achieve such milestone event and (ii) the number of times such milestone event occurs with respect to a Product. For the sake of clarity, each milestone event shall only trigger one milestone payment.

**7.3 Payment of Royalties; Royalty Rates; Sublicense Royalties; Accounting and Records.**

**7.3.1 Payment of Royalties.** Subject to the remainder of this Section 7.3, TG shall pay LICENSOR a non-refundable, non-creditable royalty at royalty rate equal to \* percent (\*%) of the Annual Net Sales of each Product in each Calendar Year (or partial Calendar Year) commencing with the First Commercial Sale of such Product in any country in the Territory and ending upon the last day of the last Royalty Term for such Product in such country. For purposes of clarity, Annual Net Sales shall be determined separately for each separate Product that is sold in a given Calendar Year.

**7.3.2 Sublicense Royalties.** Notwithstanding the foregoing, if TG sublicenses any of the Products in any country of the Territory, then in such Territory for such Product, the TG shall pay to LICENSOR Sublicense Royalties in lieu of the royalties set forth above.

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\*Confidential material redacted and filed separately with the Commission.

**7.3.3 Adjustments to Royalties for Generic Products.** In the event that a Third Party sells a Generic Product (as defined below) in a country in which a Product is then being sold and such Generic Product is not covered by a Valid Claim under the Licensed Patent Rights or TG Program Patent Rights in such country, then during the period in which sales of the Generic Product by such Third Party are equal to at least \* percent (\*%) of TG's volume-based market share of the Product in such country (as measured by prescriptions or other similar information available in such country), the royalty rate applicable to Net Sales of the Product in such country shall be reduced to \* percent (\*%). Notwithstanding the foregoing, TG's right to reduce its royalty obligation under this Section 7.3.3(1) shall expire on the first day of the Calendar Quarter immediately following the Calendar Quarter in which sales of such Generic Product account for less than \* percent (\*%) of TG's volume-based market share of the Product in such country (as measured by prescriptions or other similar information available in such country). For purposes of this Section 7.3.3), a "**Generic Product**" means a biosimilar product with the same amino acid sequence as the Compound.

**7.3.4 Adjustment to Royalties and to Sublicense Royalties for loss of Manufacturing under section 6.2**

In the event that LICENSOR loses its exclusive right of Manufacturing under section 6.2 (b), TG shall pay to LICENSOR an additional royalty of: \* percent (\*%) of Net Sales, \*.

**7.3.5 Payment Dates and Reports.**

(a) Royalty Payments. Royalty payments shall be made by TG with respect to each Product within thirty (30) days after the end of each Calendar Quarter in which sales of such Product occur, commencing with the Calendar Quarter in which the First Commercial Sale of such Product occurs. TG shall also provide, at the same time each such payment is made, a report showing: (a) the Net Sales of each Product by type of Product and country in the Territory and, if applicable, by Combination Product; (b) the total amount of deductions from gross sales to determine Net Sales; (c) the applicable royalty rate for Product in each country in the Territory after applying any reductions set forth above; and (d) a calculation of the amount of royalty due to LICENSOR.

(b) Sublicensee Royalty. Sublicense Income Payments shall be made by TG to LICENSOR with respect to all Sublicense Income, within thirty (30) days of the end of each Calendar Quarter in which such Sublicense Income is received by TG. TG shall also provide, at the same time each such Sublicense Income is made, a report showing: (a) a detailed accounting of all Sublicense Income received during the applicable Calendar Quarter; (a) the Net Sales of each Product by type of Product and country in each country covered by the Sublicense Agreement; (b) the total amount of deductions from gross sales to determine Net Sales; (c) the amount of the royalty payment that would be payable in such country based upon a royalty rate of \* percent (\*%); and (d) a calculation of the aggregate \* payable to LICENSOR in U.S. Dollars. If no amounts are due to LICENSOR for a particular Calendar Quarter, the report shall so state.

(c) Royalties on Licensed Trademarks. The above mentioned Royalty payments and Sublicense Royalties percentages includes a \* percent (\*%) royalty in consideration of the grant of the license to the Licensed Trademarks.

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\*Confidential material redacted and filed separately with the Commission.

(d) **Payment in Common Stock.** In the event that on the date on which TG owes a milestone payment to LICENSOR pursuant to Section 7.2.1, above, TG is publicly traded on a stock exchange then, subject to LICENSOR's prior approval not to be unreasonably withheld, such milestone payment may be made through the issuance of that number of shares of Common Stock of TG as shall equal the amount of the milestone payment due and payable divided by the Average Closing Price. For purposes of this Section 7.3.5(c), the "**Average Closing Price**" means the average of the closing prices of TG Common Stock on The NASDAQ Global Market (or, if Common Stock of TG is not listed on the NASDAQ Global Market, the principal exchange or interdealer quotation system on which the TG Common Stock is listed) for the thirty (30) trading days prior to the public announcement of the occurrence of the milestone event with respect to which the milestone payment is being made, pursuant to the terms, and subject to the conditions, set forth in the Stock Purchase Agreement.

**7.3.6 Records; Audit Rights.** TG and its Affiliates, Sublicensees and Distributors shall keep and maintain for three (3) years from the date of each payment of royalties and/or Sublicense Royalties hereunder complete and accurate records of gross sales and Net Sales by TG and its Affiliates, Sublicensees and Distributors of each Product, in sufficient detail to allow royalties and/or Sublicense Royalties to be accurately determined. LICENSOR shall have the right for a period of three (3) years after receiving any such royalty payment to appoint at its expense an independent certified public accountant reasonably acceptable to TG to audit the relevant records of TG and its Affiliates, Sublicensees and Distributors to verify that the amount of each such payment was correctly determined; provided, that, (a) if requested by TG, LICENSOR shall cause the independent certified public accountant to enter into a confidentiality agreement reasonably acceptable to TG and (b) such independent certified public accountant may only disclose to LICENSOR whether the royalties and/or Sublicense Royalties paid are correct and the details with respect to any discrepancies. TG and its Affiliates, Sublicensees and Distributors shall each make its records available for audit by such independent certified public accountant during regular business hours at such place or places where such records are customarily kept, upon thirty (30) days written notice from LICENSOR. Such audit right shall not be exercised by LICENSOR more than once in any Calendar Year or more than once with respect to sales of a particular Product in a particular period. All records made available for audit shall be deemed to be Confidential Information of TG. The results of each audit, if any, shall be binding on both Parties absent manifest error. In the event there was an underpayment of royalties by TG hereunder, TG shall promptly (but in any event no later than thirty (30) days after TG's receipt of the report so concluding) make payment to LICENSOR of any shortfall. LICENSOR shall bear the full cost of such audit unless such audit discloses an underpayment by TG of five percent (5%) or more of the aggregate amount of royalties and/or Sublicense Royalties payable in any Calendar Year, in which case TG shall reimburse LICENSOR for all costs incurred by LICENSOR in connection with such audit.

**7.3.7 Overdue Payments.** All royalty payments not made within the time period set forth in Section 7.3.5, and all milestone payments not made within the time period specified in Section 7.2.1, shall bear interest at the rate of \* percent (%) \* until paid in full or, if less, the maximum interest rate permitted by Applicable Laws. Any such overdue royalty or milestone payment shall, when made, be accompanied by, and credited first to, all interest so accrued.

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\*Confidential material redacted and filed separately with the Commission.

**7.3.8 Payments; Withholding Tax; Currency Restrictions.**

(a) Payments in United States Dollars. Except as set forth in Section 6.3.7(b) below, all payments made by TG under this Article 6 shall be made by wire transfer in United States Dollars in accordance with wire transfer instructions provided to TG in writing from time to time by LICENSOR. If in any Calendar Quarter, Net Sales are made in any currency other than United States Dollars, such Net Sales shall be converted into United States Dollars as follows:

(A/B), where

A = foreign "Net Sales" (as defined above) in such Calendar Quarter expressed in such foreign currency; and

B = foreign exchange conversion rate, expressed in local currency of the foreign country per United States Dollar (using, as the applicable foreign exchange rate, the spot purchase rate published in the *Financial Times* on the last Business Day of each Calendar Quarter in which any payment is due and payable or any other mutually agreed upon source, for such Calendar Quarter).

(b) Tax Withholding. If Applicable Laws require withholding of income or other taxes imposed upon any payments made by TG to LICENSOR under this Agreement, TG shall (i) make such withholding payments as may be required, (ii) subtract such withholding payments from such payments to be made to LICENSOR, (iii) submit appropriate proof of payment of the withholding taxes to LICENSOR within a reasonable period of time, and (iv) promptly provide LICENSOR with all official receipts with respect thereto.

(c) Currency Restrictions. If any restrictions on the transfer of currency exist in any country in which Products are sold that prevent TG from making royalty payments thereon in United States Dollars, TG shall make royalty payments on the sales in such country in the local currency by deposit in a local bank or other depository designated in writing by LICENSOR (or, in the absence of such designation, at a local bank or other depository selected by TG and identified by TG by written notice to LICENSOR).

**8. TREATMENT OF CONFIDENTIAL INFORMATION; PUBLICITY**

**8.1 Confidentiality.**

**8.1.1 Confidentiality Obligations.** LICENSOR and TG each recognize that the other Party's Confidential Information and Proprietary Materials constitute highly valuable assets of such other Party. LICENSOR and TG each agrees that, (a) subject to Section 8.1.2, during the Term and for an additional ten (10) years after termination or expiration of this Agreement it will not disclose, and will cause its Affiliates, Sublicensees (with respect to TG) and Distributors or Sublicensees (with respect to LICENSOR) not to disclose whether directly or indirectly, in any manner whatsoever, any Confidential Information or Proprietary Materials of the other Party and (b) it will not use, and will cause its Affiliates, Sublicensees (with respect to TG) and Distributors or Sublicensees (with respect to LICENSOR) not to use, any Confidential Information or Proprietary Materials of the other Party, without the prior written consent of the Disclosing Party, except as expressly permitted hereunder.



**8.1.2**

**Limited Disclosure.** LICENSOR and TG each agrees that disclosure of its Confidential Information or any transfer of its Proprietary Materials may be made by the other Party on a need-to-know basis to any employee, consultant or Affiliate of such other Party or, to the extent the other Party is TG, to any Third Party subcontractor engaged by TG pursuant to Section 2.2, in each case solely to the extent reasonably necessary to enable such other Party to exercise its rights or to carry out its responsibilities under this Agreement; provided, that, any such disclosure or transfer shall only be made to Persons who are bound by written obligations comparable in scope to the obligations described in Section 8.1.3. LICENSOR and TG each further agrees that the other Party may disclose its Confidential Information (a) on a need-to-know basis to such other Party's legal and financial advisors, (b) as reasonably necessary in connection with an actual or potential (i) permitted sublicense of such Party's rights hereunder, (ii) debt or equity financing of such other Party or (iii) acquisition, consolidation, share exchange or other similar transaction involving such Party and any Third Party, (c) to the extent the other Party is TG, to any Third Party that is or may be engaged by TG to perform services in connection with the Commercialization of Products as necessary to enable such Third Party to perform such services, (d) as reasonably necessary to make Regulatory Filings with respect to Products under this Agreement or to respond to any inquiry made by any Regulatory Authority with respect to Products and to prosecute or maintain Patent Rights, or to file, prosecute or defend litigation related to Patent Rights, in accordance with this Agreement; (e) as required by Applicable Laws (which shall be determined by the Disclosing Party in its reasonable discretion); provided, that, in the case of any disclosure under this clause (e), the Disclosing Party shall (i) if practicable, provide the other Party with reasonable advance notice of and an opportunity to comment on any such required disclosure and (ii) if requested by the other Party, cooperate in all reasonable respects with the other Party's efforts to obtain confidential treatment or a protective order with respect to any such disclosure, at the other Party's expense.

**8.1.3**

**Employees and Consultants.** LICENSOR and TG each hereby covenants and agrees that all of its employees and consultants, and all of the employees and consultants of its Affiliates, who have access to Confidential Information or Proprietary Materials of the other Party will, prior to having such access, be bound by written obligations to maintain such Confidential Information or Proprietary Materials in confidence that are no less stringent than those confidentiality and non-use provisions contained in this Agreement. Each Party agrees to use, and to cause its Affiliates to use, reasonable efforts to enforce such obligations and to prohibit its employees and consultants from using such information except as expressly permitted hereunder. Each Party will be liable to the other Party for any disclosure or misuse by its employees of Confidential Information or Proprietary Materials of the other Party.

## **8.2 Publicity.**

Notwithstanding anything to the contrary in Section 8.1, the Parties, upon the execution of this Agreement, shall jointly issue a press release with respect to this Agreement to be reasonably agreed by the Parties in substantially the form attached hereto as Schedule 6, and either Party may make subsequent public disclosure of the contents of such press release without further approval of the other Party. Subject to the foregoing, except as required by Applicable Laws (including those relating to disclosure of material information to investors), neither Party shall issue a press or news release or make any similar public announcement (it being understood that publication in scientific journals, presentation at scientific conferences and meetings and the like are intended to be covered by Section 8.4 and not subject to this Section 8.2) related to the terms or existence of this Agreement or the conduct of the Development Program or the Commercialization of Products without the prior written consent of the other Party; provided, however, that either Party may make such a disclosure (a) to the extent required by Applicable Laws (including the requirements of any nationally recognized securities exchange, quotation system or over-the-counter market on which such Party has its securities listed or traded), or (b) to any investors, prospective investors, lenders and other potential financing sources who are obligated to keep such information confidential. In the event that such disclosure is required as aforesaid, the disclosing Party shall make reasonable efforts to provide the other Party with notice beforehand and to coordinate with the other Party with respect to the wording and timing of any such disclosure. Once any press release or any other written statement is approved for disclosure by both Parties, either Party may make subsequent public disclosure of the contents of such statement without the further approval of the other Party.

## **8.3 No Use of Name.**

Neither Party shall use the name of the other Party in any Promotional Materials or advertising without the prior express written permission of the other Party.

## **8.4 Publications and Presentations.**

Following the date hereof, LICENSOR shall not publish or present any results (the “**Results**”) of the Development Program, without the prior written consent of TG, such consent not to be unreasonably withheld.

# **9. INTELLECTUAL PROPERTY RIGHTS**

## **9.1 LICENSOR Intellectual Property Rights.**

LICENSOR shall have ownership of all right, title and interest, or license to, on a worldwide basis in and to any and all Licensed Technology and Licensed Patent Rights.

## **9.2 Improvement**

- 9.2.1** TG agrees to notify LICENSOR of each Product Improvement TG, its Affiliates or its Sublicensees has developed, conceived or acquired during the Term of this Agreement. TG shall, upon request of LICENSOR, provide to LICENSOR all data and specifications concerning such Product Improvement. All Product Improvements shall be deemed to be considered as a “Joint Improvement”.

9.2.2 All LICENSOR Improvement shall be the exclusive and sole property of LICENSOR and shall become Background Patent Right or Licensed Patent Rights, as the case may be.

**9.3 Joint Improvement**

9.3.1 Subject to any other provision to the contrary that may be contained in LICENSOR’s Licenses as defined in Section 2.1.1, any Joint Improvement shall be jointly owned by TG and LICENSOR.

9.3.2 TG shall have the exclusive, fully paid-up, irrevocable, transferable right to Use such Joint Improvements in order to Develop the Compounds or Products as part of the Development Program and to Commercialize, use, have used, Manufacture, have Manufactured, supply, sell, offer to sell, import, have imported, market, and otherwise Commercialize Products in the Field, within the Territory with the right to sublicense .

9.3.3 Each Party have the exclusive, fully paid-up, irrevocable, transferable right to Use such Joint Improvements in order to develop and to commercialize have used, Manufacture, have Manufactured, supply, sell, offer to sell, import, have imported, market, any product other than the Product and Compound.

9.3.4 Each Party shall reasonably assist the other in preparing, prosecuting and maintaining Patent Rights for Joint Improvements pursuant to section 9.4; 9.5 and 10.

**9.4 Patent Coordinators.**

Each Party shall, by written notice to the other Party, appoint a patent coordinator reasonably acceptable to the other Party (each, a “Patent Coordinator”) to serve as such Party’s primary liaison with the other Party on matters relating to the filing, prosecution, maintenance and enforcement of Patent Rights. Each Party may replace its Patent Coordinator at any time by notice in writing to the other Party. The initial Patent Coordinators shall be:

For LICENSOR: Nicolas MARRO

For TG: Lauren Friedberg

**9.5 Notice; Inventorship.**

The Parties hereby agrees to promptly notify to the other Party, through the Patent Coordinators, of the conception or reduction to practice of any Program Technology or Joint-Improvement and to promptly execute any documents that may be necessary to perfect LICENSOR's rights in and to such Program Technology or Joint-Improvement. The Patent Coordinators shall determine inventorship of Program Technology or Joint-Improvement under U.S. patent law. In case of a dispute between the Patent Coordinators over inventorship and, as a result, whether any particular Technology is LICENSOR Technology or Joint Improvement,, such dispute shall be resolved according to U.S. patent law by patent counsel selected by the Patent Coordinators who (and whose firm) is not at the time of the dispute, and was not at any time during the five (5) years prior to such dispute, performing services for either of the Parties. Expenses of such patent counsel shall be shared equally by the Parties.

**10. FILING, PROSECUTION AND MAINTENANCE OF PATENT RIGHTS**

**10.1 Patent Filing, Prosecution and Maintenance.**

**10.1.1 LICENSOR Prosecution Rights.** LICENSOR shall have the sole right and responsibility to prepare and file applications with respect to, and prosecute and maintain, at its sole cost, expense and discretion, and using patent counsel or agents of its choice, all Licensed Patent Rights (including all Joint Patent Rights that are Licensed Patent Rights) throughout the Territory. TG shall cooperate with and assist LICENSOR in all reasonable respects, in connection with LICENSOR's preparation, filing, prosecution and maintenance of Licensed Patent Rights.

**10.1.2 TG Prosecution Rights.** TG shall have the sole right and responsibility to prepare and file applications with respect to, and prosecute and maintain, at its sole cost, expense and discretion, and using patent counsel or agents of its choice, all TG Program Patent Rights throughout the Territory. LICENSOR shall cooperate with and assist TG in all reasonable respects, in connection with TG's preparation, filing, prosecution and maintenance of TG Program Patent Rights.

**10.1.3 Joint Patent Rights.** Subject to Section 10.1.1, within ten (10) Business Days after it is determined pursuant to Section 9.5 that any particular Program Technology is Joint Improvement, the Parties will determine which Party will undertake the prosecution of such Joint Patent Rights based on the respective expertise of the Parties and the rights of the Parties under this Agreement. If the Parties fail to agree within such ten (10) Business Day period, then prosecution of such Patent Rights shall be jointly controlled by the Parties, using patent counsel agreed upon by the Patent Coordinators. All patent costs and expenses incurred by a Party or jointly by the Parties in connection with the preparation, filing, prosecution and maintenance of Joint Patent Rights in the Territory that cover any Product for use in the Field shall be shared equally by the Parties. Provided however that, if a Party refuses, declines or fails to assume its obligations under this section 11.1.2, it shall advise the other Party and said other Party shall have the right, at its own expense, to prepare, prosecute and maintain Patent Rights for Joint Improvements. In such a case, upon request of the non-defaulting Party, the Party that refuses, declines or fails to file, prosecute or maintain any such Patent Rights for Joint Improvements shall assign all its co-ownership rights to the other Party.

**10.1.4 Information and Cooperation.** The Parties hereby agree to cooperate with each other in connection with the filing, prosecution and maintenance of Patent Rights under this Agreement, including through the prompt execution and delivery of documents and instruments as may reasonably be required in connection therewith. Without limiting the foregoing, each Party responsible for the filing, prosecution and/or maintenance of Patent Rights under Sections 10.1.1 and/or 10.1.2 above (a “**Filing Party**”) shall (a) promptly provide the other Party with copies of all patent applications filed hereunder and other material submissions and correspondence with applicable patent offices, in sufficient time to allow for review and comment by the other Party; (b) provide the other Party and its patent counsel with an opportunity to consult with the Party and its patent counsel regarding the filing and contents of any such application, amendment, submission or response; and (c) take into consideration in good faith the advice and suggestions of the other Party and its patent counsel in connection with such filing.

**10.1.5 Interference, Opposition, Reexamination and Reissue.**

(a) **Notice.** Not more than thirty (30) days following the discovery by either Party of any request for, or the filing or declaration of, any interference, opposition, or reexamination proceeding with respect to any Licensed Patent Rights in the Territory, the discovering or determining Party shall notify the other Party of such event.

(b) **Primary Responsibility and Cooperation.** LICENSOR shall have primary responsibility, at its own expense, with respect to the course of action taken to defend or prosecute any such interference, opposition, reexamination or reissue, except that the Parties shall share equally the reasonable fees and expenses incurred under this Section 10.1.4(b) with respect to Joint Patent Rights. The Parties shall cooperate fully with each other and each shall provide to the other any information or assistance that the other may reasonably request with respect to any course of action taken under this Section 10.1.4. LICENSOR shall (a) keep TG reasonably informed of all developments in such interference, opposition, reexamination or reissue in the Territory, including to the extent permissible, the status of any settlement negotiations and the terms of any offer related thereto and (b) provide to TG copies of all submissions or agreements arising in connection with such proceeding sufficiently in advance of their filing or due date so as to give TG sufficient time to comment thereon, and LICENSOR shall give good faith consideration to TG’s comments, with due regard to the other Party’s rights and commercial interests under this Agreement. Neither Party shall enter into any settlement or consent decree regarding Joint Patent Rights, or assent to the grant of any reissued or reexamined patent within the Joint Patent Rights, without the prior written consent of the other Party, which shall not be unreasonably withheld or delayed.

**10.1.6 Decision Not to File; Abandonment.** LICENSOR shall notify TG in the event LICENSOR decides at any time to abandon or discontinue prosecution of any one or more of the patents or patent applications included in the Licensed Patent Rights and in the Territory. Such notification will be given as early as possible which in no event will be less than fifteen (15) days prior to the date on which said patent(s) or patent application(s) will become abandoned. TG shall have the option, exercisable upon written notification to LICENSOR, to assume full responsibility, at its discretion for the prosecution of the affected patent(s) or patent application(s), which shall be conducted in the name of TG.

## 10.2 Enforcement and Defense.

### 10.2.1 Third Party Infringement.

(a) In General.

(i) Notice. In the event either Party becomes aware of (i) any suspected infringement or misappropriation of any Licensed Patent Rights, Joint Patent Rights that covers the development or commercialization of a Compound or Product in the Field in the Territory, or (ii) the submission by any Third Party of an abbreviated NDA under the Hatch-Waxman Act for a product in the Field that comprises the Compound (each, an “**Infringement**”), that Party shall promptly notify the other Party and provide it with all details of such Infringement of which it is aware (each, an “**Infringement Notice**”). The Patent Coordinators shall promptly meet to discuss the Infringement and the strategy for patent enforcement with respect to such Infringement.

(ii) LICENSOR Right to Enforce. LICENSOR shall have the first right, but not the obligation, to address any such Infringement in the Territory by taking reasonable steps, which may include the institution of legal proceedings or other actions (each, an “**Action**”), and to compromise or settle such Action; provided, that, (A) LICENSOR shall keep TG reasonably informed about such Action, (B) TG shall provide reasonable cooperation to LICENSOR in connection with such Action, (C) LICENSOR shall not take any position with respect to, or compromise or settle, such Action in any way that would be reasonably likely to directly and adversely affect the scope, validity or enforceability of the Licensed Patent Rights without the prior consent of TG, which consent shall not be unreasonably withheld, and (D) if LICENSOR does not intend to prosecute or defend an Infringement, or determines to cease to pursue such an Action, it shall promptly inform TG and Section 10.2.1(a)(iii) shall apply. LICENSOR shall incur no liability to TG as a consequence of such Action or any unfavorable decision resulting therefrom, including any decision holding any such claim invalid, not infringed or unenforceable. All costs, including, without limitation, attorneys’ fees, relating to such legal proceedings or other action shall be borne by LICENSOR.

(iii) TG Right to Enforce. If (A) LICENSOR informs TG that LICENSOR does not intend to prosecute an Action in respect of any Licensed Patent Rights or Joint Patent Rights pursuant to Section 10.2.1(a)(ii), (B) within sixty (60) days after the Infringement Notice, LICENSOR has not commenced any Action, or (C) if LICENSOR determine to cease to pursue any such Action with respect to such Infringement, then TG shall have the right, at its own expense, upon notice to LICENSOR to take appropriate action to address such Infringement, including by initiating its own Action or taking over prosecution of any Action initiated by LICENSOR; provided, that, in such event, (1) TG shall keep LICENSOR reasonably informed about such Action and shall consult with LICENSOR before taking any major steps during the conduct of such Action, (2) LICENSOR shall provide reasonable cooperation to TG in connection with such Action, and (3) TG shall not take any position with respect to, or compromise or settle, such Action in any way that is reasonably likely to directly and adversely affect the scope, validity or enforceability of the Licensed Patent Rights without LICENSOR’ prior written consent, which consent shall not be unreasonably withheld. LICENSOR shall incur no liability to LICENSOR as a consequence of such Action or any unfavorable decision resulting therefrom, including any decision holding any such claim invalid, not infringed or unenforceable. All costs, including, without limitation, attorneys’ fees, relating to such legal proceedings or other action shall be borne by TG.

(iv) Joint Patent Rights. In the event of an Infringement of a Joint Patent Right, the Parties shall enter into good faith discussions as to whether and how to eliminate the Infringement. Subject to the foregoing, (A) TG shall have the first right and option to eliminate such Infringement by reasonable steps, which may include the institution of legal proceedings or other action and (B) all costs, including without limitation attorneys' fees, relating to such legal proceedings or other action shall be borne by TG. If TG does not take or initiate commercially reasonable steps to eliminate the Infringement within one hundred twenty (120) days from any Infringement Notice (or twenty (20) days in the case of an Infringement resulting from the submission by any Third Party of an abbreviated new drug application under the Hatch-Waxman Act), then LICENSOR shall have the right an option to do so at its expense.

(b) Right to Representation. Each Party shall have the right to participate and be represented by counsel that it selects, in any Action instituted under Section 10.2.1(a)(ii), (iii) or (iv) by the other Party. If a Party with the right to initiate an Action under Section 10.2.1(a) to eliminate an Infringement lacks standing to do so and the other Party has standing to initiate such Action, then the Party with the right to initiate an Action under Section 10.2.1(a) may name the other Party as plaintiff in such Action or may require the Party with standing to initiate such Action at the expense of the other Party.

(c) Cooperation. In any Action instituted under this Section 10.2.1, the Parties shall cooperate with and assist each other in all reasonable respects. Upon the reasonable request of the Party instituting such Action, the other Party shall join such Action and shall be represented using counsel of its own choice, at the requesting Party's expense.

(d) Allocation of Proceeds. Any amounts recovered by either Party pursuant to Actions under Sections 10.2.1(a)(ii), (iii) or (iv) with respect to any Infringement, whether by settlement or judgment, shall, after reimbursing TG and LICENSOR for their respective reasonable out-of-pocket expenses incurred in pursuing such Action and obtaining such recovery (which amounts shall be allocated pro rata if insufficient to cover the totality of such expenses) be retained by or paid to TG and treated as Net Sales of the Product affected by the Infringement for purposes of this Agreement, such that TG shall pay to LICENSOR the applicable royalty due on such Net Sales pursuant to Section 7.3.1.

#### **10.2.2 Defense of Claims**

(a) Notice. In the event that any action, suit or proceeding is brought against either Party or any Affiliate of either Party or any Sublicensee or Distributor of TG alleging the infringement of the Technology or Patent Rights of a Third Party by reason of or the Development or Commercialization, including the Manufacture, use or sale, of any Compound or Product, by or on behalf of TG, its Affiliates, Sublicensees or Distributors, such Party shall notify the other Party within five (5) days of the earlier of (i) receipt of service of process in such action, suit or proceeding, or (ii) the date such Party becomes aware that such action, suit or proceeding has been instituted and the Patent Coordinators shall meet as soon as possible to discuss the overall strategy for defense of such matter.

(b) **Prosecution of Infringement claims in the Territory.** Except as unanimously agreed by the Patent Coordinators and subject to Article 14, (i) LICENSOR shall have the primary right but not the obligation to institute and control such action, suit or proceeding in its own name and at its sole expense and in such case, LICENSOR and/or any of its Affiliates shall have the right to separate counsel at its own expense in any such action, suit or proceeding and, TG shall cooperate with LICENSOR in all reasonable respects in any such action, suit or proceeding ; (ii) in the event LICENSOR waives its primary right as defined in (i) the Parties may elect, without being obliged, to jointly commence an action, and in this respect shall be represented by a counsel jointly chosen by the Parties, decide on a course of action, and share equally in the costs and expenses, and in the amounts recovered in accordance with, subject to and within the limits set out in LICENSOR's Licenses or (iii) Upon LICENSOR's request TG may defend any action, suit or proceeding in its own name and at its sole expense and in such case TG and/or any of its Affiliates shall have the right to separate counsel at its own expense in any such action, suit or proceeding and LICENSOR shall cooperate with TG in all reasonable respects in any such action, suit or proceeding .

(c) **Cooperation.** Each Party shall promptly furnish the other Party with a copy of each communication relating to the alleged infringement that is received by such Party including all documents filed in any litigation. In no event shall either Party settle or otherwise resolve any such action, suit or proceeding brought against the other Party or any of its Affiliates or sublicensees without the other Party's prior written consent.

**10.2.3 Patent Term Restoration.** The Parties hereto shall cooperate with each other in obtaining patent term restoration or supplemental protection certificates or their equivalents in any country in the Territory where applicable to Licensed Patent Rights. Such cooperation shall include diligently and timely conferring and coordinating with respect to such matters to ensure compliance with applicable filing deadlines, and agreeing on procedures to be followed by the Parties to ensure such compliance. In the event that elections with respect to obtaining such patent term restoration are to be made, LICENSOR shall have the right to make the election with respect to Licensed Patent Rights.

### **10.3 Trademark Prosecution and Registration.**

LICENSOR shall control the registration of the Licensed Trademark, to be used with Products in the Territory. LICENSOR shall have the primary right and obligation to take any actions as are required to continue and maintain in full force and effect and enforce and defend all Licensed Trademarks and registrations thereof, against infringement and misappropriation in the Territory, and shall be solely responsible for all expenses incurred in connection therewith. Upon LICENSOR's request TG may have the right to take any actions as are required to continue and maintain in full force and effect and enforce and defend all Licensed Trademarks and registrations thereof, against infringement and misappropriation in the Territory, and shall be solely responsible for all expenses incurred in connection therewith.



## 11. TERM AND TERMINATION

### 11.1 Term.

This Agreement shall commence on the Effective Date and shall continue in full force and effect, unless otherwise terminated pursuant to Section 11.2, (a) until such time as TG is no longer Developing at least one (1) Compound and/or at least one (1) Product or (b) if, as of the time TG is no longer Developing at least one (1) Compound and/or at least one (1) Product, TG is Commercializing a Product, until the later of (i) the expiration of all applicable Royalty Terms with respect to Products and (ii) the expiration of all obligations of TG to pay Sublicense Royalties to LICENSOR under this Agreement (the "Term"). Upon the expiration of this Agreement as set forth in this Section 11.1, the license rights granted hereunder shall be converted to perpetual and fully paid-up licenses on Licensed Technology and Licensed Patent Rights, with the right to grant unlimited sublicenses. However, TG shall continue to pay to LICENSOR royalties on the use of Licensed Trademarks as defined in section 7.3.4. c.).

### 11.2 Termination.

This Agreement may be terminated by either Party as follows:

#### 11.2.1 Unilateral Right to Terminate Agreement.

(a) LICENSOR Rights to Terminate for Challenge. Except to the extent the following is unenforceable under the Applicable Laws of a particular jurisdiction where a patent application within the Licensed Patent Rights is pending or a patent within the Licensed Patent Rights is issued, LICENSOR may terminate this Agreement immediately upon written notice to TG in the event that TG or any of its Affiliates or Sublicenses Challenges any Licensed Patent Rights or assists a Third Party in initiating a Challenge of any Licensed Patent Rights.

**11.2.2 Termination for Breach.** Either Party may terminate this Agreement, effective immediately upon written notice to the other Party, for a material breach (including TG's failure to meet its diligence requirements and responsibilities as set forth in Section 3; 4 and 5) by the other Party of any term of this Agreement that remains uncured ninety (90) days (sixty (60) days in the event that the breach is a failure of a Party to make any payment required hereunder) after the non-breaching Party first gives written notice to the other Party of such breach and its intent to terminate this Agreement if such breach is not cured. For purposes of clarity, the obligation of the breaching Party to cure any such breach shall be stayed for any time period during which such breach is the subject of a dispute resolution proceeding pursuant to Section 14.1; provided, that, the obligation of the breaching Party to cure such breach shall resume commencing on the date of any final resolution of such proceeding.

**11.2.3 Termination for Insolvency.** In the event that either Party makes an assignment for the benefit of creditors, appoints or suffers appointment of a receiver or trustee over all or substantially all of its property, files a petition under any bankruptcy or insolvency act or has any such petition filed against it which is not discharged within sixty (60) days of the filing thereof, then the other Party may terminate this Agreement effective immediately upon written notice to such Party.

### 11.3 Consequences of Termination of Agreement.

In the event of the termination of this Agreement pursuant to Section 11.2, the following provisions shall apply, as applicable.

**11.3.1 Termination by LICENSOR.** If this Agreement is terminated by LICENSOR pursuant to Section 11.2.1, 11.2.2 or 11.2.3:

(a) All licenses and rights granted by LICENSOR to TG, including all licenses granted to TG pursuant to Section 2.1, shall immediately terminate.

(b) TG shall cease to use any and all Licensed Trademarks, any Marketing Authorization obtained in accordance with the AGREEMENT and shall further promptly transfer such Marketing Authorizations and/or orphan drug designations to LICENSOR at no cost for LICENSOR.

(c) TG shall cease to conduct any activity related to the Development and Commercialization of the Product.

(d) Upon request of LICENSOR, TG shall promptly, and in any event within sixty (90) days after LICENSOR's request (which request may specify any or all of the actions in clauses (A) through (H): (A) transfer to LICENSOR all of its right, title and interest in all Drug Approval Applications and then in its name applicable to the Product, if any, and all Confidential Information Controlled by TG as of the date of termination relied on by such Drug Approval Applications; (B) notify the applicable Regulatory Authorities and take any other action reasonably necessary to effect such transfer; (C) provide LICENSOR with copies all correspondence between TG and such Regulatory Authorities relating to such Drug Approval Applications; (D) unless expressly prohibited by any Regulatory Authority, transfer sponsorship and control to LICENSOR of all Clinical Trials of the Product being conducted as of the effective date of termination and continue to conduct such Clinical Trials after the effective date of termination to enable such transfer to be completed without interruption of any such Clinical Trial for up to twelve (12) months from the effective date of termination, except for termination for breach of TG, the fully burdened cost of such continuation to be paid for by LICENSOR (E) cooperate with LICENSOR, cause its Affiliates to cooperate with LICENSOR and use commercially reasonable efforts to require any Third Party with which TG has an agreement with respect to the conduct of Clinical Trials for the Product (including agreements with contract research organizations, clinical sites and investigators), to cooperate with LICENSOR in order to accomplish the transfer to LICENSOR of similar rights as held by TG under its agreements with such Third Parties; (F) provide LICENSOR with copies of all reports and Clinical Data generated or obtained by TG or its Affiliates, and all Promotional Materials used by TG, pursuant to this Agreement that relate to the Product that have not previously been provided to LICENSOR and provide LICENSOR with a right of access, a right of reference and a right to use and incorporate all Clinical Data, results and information in all Drug Approval Applications then in its name applicable to the commercialization of Product and all material aspects of Confidential Information Controlled by it as of the date relating to such Drug Approval Applications for LICENSOR to use to seek Regulatory Approvals; (G) provide LICENSOR at cost with all supplies of Compounds and Products in the possession of TG or any Affiliate or contractor of TG; and (H) provide LICENSOR with copies of all reports and data generated or obtained by TG or its Affiliates pursuant to this Agreement that relate to any Product that have not previously been provided to LICENSOR; (I) enter into negotiations with LICENSOR and agree upon and implement a plan for the orderly transition of Development and Commercialization from TG to LICENSOR in a manner consistent with Applicable Laws and standards of ethical conduct of human Clinical Trials and will seek to replace all TG personnel engaged in any Development or Commercialization activities, in each case, as promptly as practicable. In connection therewith, TG shall be deemed to have granted to LICENSOR an exclusive, fully-paid, royalty-free, irrevocable license, with the right to grant sublicenses under TG's interest in Joint Improvements and Joint Patent Rights, for the sole purpose of using, making, having made, offering for sale, selling, having sold, importing and exporting any Products being Developed and/or Commercialized by TG as of the effective date of such termination in the Field and in the Territory.

(e) Each Party shall promptly return all Confidential Information and Proprietary Materials of the other Party that are not subject to a continuing license hereunder; provided, that, each Party may retain one copy of the Confidential Information of the other Party in its archives solely for the purpose of establishing the contents thereof and ensuring compliance with its obligations hereunder.

(f) TG shall promptly return to LICENSOR all raw data and results generated in each such Clinical Trial

**11.3.2 Termination by TG.** If this Agreement is terminated by TG pursuant to Section, 11.2.2 or 11.2.3:

(a) At TG's election, all licenses granted by LICENSOR to TG pursuant to Section 2.1 shall survive such termination, in each case subject to TG's continued payment of all milestone, royalty, Sublicense Royalties and other payments under and in accordance with this Agreement with respect thereto.

(b) Each Party shall promptly return all Confidential Information and Proprietary Materials of the other Party that are not subject to a continuing license hereunder; provided, that, each Party may retain one copy of the Confidential Information of the other Party in its archives solely for the purpose of establishing the contents thereof and ensuring compliance with its obligations hereunder.

(c) TG shall promptly return to LICENSOR all raw data and results generated in each such Clinical Trial

**11.4 Surviving Provisions.**

Termination or expiration of this Agreement for any reason shall be without prejudice to:

(a) Survival of rights specifically stated in this Agreement to survive, including without limitation as set forth in Section 11.3;

(b) the rights and obligations of the Parties provided in Sections 8, 9, 10, 12, 13, 14.1 and 14.2 (including all other Sections or Articles referenced in any such Section or Article), all of which shall survive such termination except as provided in this Article 10; and

(c) any other rights or remedies provided at law or equity which either Party may otherwise have.

## 12. REPRESENTATIONS AND WARRANTIES

### 12.1 Mutual Representations and Warranties.

LICENSOR and TG each hereby represents and warrants to the other, as of the Effective Date, as follows:

**12.1.1 Organization.** It is a corporation duly organized, validly existing and in good standing under the laws of the jurisdiction of its organization, and has all requisite power and authority, corporate or otherwise, to execute, deliver and perform this Agreement.

**12.1.2 Authorization.** The execution and delivery of this Agreement and the performance by it of the transactions contemplated hereby have been duly authorized by all necessary corporate action and will not violate (a) such Party's certificate of incorporation or bylaws (or equivalent charter or organizational documents), (b) any agreement, instrument or contractual obligation to which such Party is bound in any material respect, (c) any requirement of any Applicable Laws, or (d) any order, writ, judgment, injunction, decree, determination or award of any court or governmental agency presently in effect applicable to such Party.

**12.1.3 Binding Agreement.** This Agreement is a legal, valid and binding obligation of such Party enforceable against it in accordance with its terms and conditions.

**12.1.4 No Inconsistent Obligation.** It is not under any obligation, contractual or otherwise, to any Person that conflicts with or is inconsistent in any respect with the terms of this Agreement or that would impede the diligent and complete fulfillment of its obligations hereunder.

**12.1.5 No Government Authorization Required.** No government authorization, consent, approval, license, exemption of or filing or registration with any court or governmental department, commission, board, bureau, agency or instrumentality, domestic or foreign, under any Applicable Laws currently in effect, is or will be necessary for, or in connection with, the transactions contemplated by this Agreement, or for the performance by it of its obligations under this Agreement.

**12.1.6** TG represents and warrants that it has all necessary financial and human resources to enter and perform all its commitments and obligations contained in the Agreement.

### 12.2 Additional Representations of LICENSOR.

LICENSOR further represents and warrants to TG, as of the Effective Date, as follows:

**12.2.1 Validity of Patent Rights.** All Licensed Patent Rights listed on Schedule 4 are existing and, to LICENSOR' Knowledge, no issued patents which are part of the Licensed Patent Rights listed on Schedule 4 are invalid or unenforceable.

**12.2.2** **No Claims.** There are no claims, judgments or settlements against LICENSOR pending, or to LICENSOR' Knowledge, threatened, that invalidate or seek to invalidate the Licensed Patent Rights. There is no litigation pending against LICENSOR or any Affiliate of LICENSOR that alleges that any of LICENSOR' activities relating to the Compound have violated, or by Developing the Compound would violate, any of the intellectual property rights of any Third Party (nor has it received any written communication threatening such litigation). To LICENSOR' Knowledge, no litigation has been threatened against LICENSOR or any Affiliate of LICENSOR which alleges that any of its activities relating to the Compound have violated, or by Developing the Compound would violate, any of the intellectual property rights of any Third Party.

**12.2.3** **No License.** LICENSOR has not previously entered into any agreement pursuant to which it granted a license with respect to the Compound, or Product or under the Licensed Patent Rights or Licensed Technology to any Affiliate or Third Party, which license grant remains in effect or which agreement has surviving license rights, or other surviving terms, that are inconsistent with the rights and licenses granted to TG under this Agreement.

**12.2.4** **Third Party Patents.** Except the patents disclosed in the dataroom and to LICENSOR' Knowledge, no Patent Rights owned or controlled by any Third Party would be infringed by the Development, Manufacture, use of Commercialization by or on behalf of TG of the Compound or any Product pursuant to this Agreement.

**12.2.5** **No Interference.** To LICENSOR' Knowledge, (a) the Licensed Patent Rights are not the subject of any interference proceeding and (b) there is no pending or threatened action, suit, proceeding or claim by any Third Party challenging LICENSOR' ownership rights in, or the validity or scope of, the Licensed Patent Rights.

### **12.3 Additional Representations of TG.**

TG further represents and warrants to LICENSOR, as of the Effective Date, as follows:

**12.3.1** **No Claims.** There is no litigation pending against TG or any Affiliate of TG that relates, directly or indirectly, to the subject matter of this Agreement and that alleges that any of TG's activities to be conducted relating to the Development of the Compound would violate any of the intellectual property rights of any Third Party (nor has it received any written communication threatening such litigation).

**12.3.2** **Compliance with Applicable Laws.** TG is in compliance with all Applicable Laws, and is not in default under or in violation of any Applicable Laws, that, in any case, would reasonably be expected to adversely affect the ability of TG to comply with and perform its obligations under this Agreement.

**12.3.3** **Electronic Dataroom.** TG represents and warrants that it has been granted access to an electronic dataroom organized by LICENSOR and therefore has a clear and perfect knowledge and a good understanding of all documents, information and data contained in such electronic dataroom, and their consequences on rights granted by LICENSOR under the Agreement. Within thirty (30) days of the date hereof, LICENSOR will use Commercially Reasonable Efforts to transfer a copy of the contents of the electronic dataroom in their original format to TG and will transfer such other manifestations of the Licensed Technology useful or necessary for TG to Develop and Commercialize the Products, including without limitation raw data and results generated in each clinical trial and pre-clinical studies previously conducted and batch reports from manufacturing runs through the date hereof, to the extent not included in the dataroom. On and after the date hereof, LICENSOR will use Commercially Reasonable Efforts to forward such manifestations of the Licensed Technology that it has in its possession to TG on a regular basis or upon request.

### 13. INDEMNIFICATION; INSURANCE

#### 13.1 Indemnification of LICENSOR by TG.

TG shall indemnify, defend and hold harmless LICENSOR, its Affiliates, their respective directors, officers, employees and agents, and their respective successors, heirs and assigns (collectively, the “**LICENSOR Indemnities**”), against all liabilities, damages, losses and expenses (including, without limitation, reasonable attorneys’ fees and expenses of litigation) (collectively, “**Losses**”) incurred by or imposed upon LICENSOR Indemnities, or any of them, as a direct result of claims, suits, actions, demands or judgments of Third Parties, including, without limitation, personal injury and product liability claims (collectively, “**Claims**”), arising out of (a) the Development, testing, sale, offer for sale, or Commercialization by TG or any of its Affiliates, Sublicensees or Distributors of any Product; (b) any breach of this Agreement by TG or any of its Affiliates, Sublicensees, Distributors or agents; and (c) the gross negligence or willful misconduct of any TG Indemnity or Sublicensee of TG; excluding, in each of (a), (b) and (c) above, any Claim or Loss with respect to which LICENSOR has an obligation to indemnify TG Indemnities pursuant to Section 13.2, as to which Claim or Loss each Party will indemnify the other to the extent of their respective liability for such Loss (unless such Claim or Loss is otherwise expressly excluded from a Party’s indemnification obligations under this Agreement).

#### 13.2 Indemnification of TG by LICENSOR.

LICENSOR shall indemnify, defend and hold harmless TG, its Affiliates, their respective directors, officers, employees and agents, and their respective successors, heirs and assigns (collectively, the “**TG Indemnities**”), against all Losses incurred by or imposed upon the TG Indemnities, or any of them, as a direct result of Claims arising out of (a) the commercialization by LICENSOR of any LICENSOR Commercialization Product in the LICENSOR Commercialization Territory following exercise of LICENSOR commercialization option (b) any breach of this Agreement by LICENSOR or any of its Affiliates, (sub)licensees, distributors or agents; or (b) the gross negligence or willful misconduct of any LICENSOR Indemnity or (sub)licensee of LICENSOR; excluding, in the case of clauses (a) and (b) above, any Claim or Loss with respect to which TG or any of its Affiliates has an obligation to indemnify LICENSOR pursuant to Section 13.1, as to which Claim or Loss each Party will indemnify the other to the extent of their respective liability for such Loss.

**13.3 Conditions to Indemnification.**

A Person seeking modification under this Article 13 (the “**Indemnified Party**”) in respect of a Claim shall give prompt notice of such Claim to the Party from which indemnification is sought (the “**Indemnifying Party**”); provided, that, the Indemnifying Party is not contesting its obligation under this Section 13, shall permit the Indemnifying Party to control any litigation relating to such Claim and the disposition of such Claim; provided, that, the Indemnifying Party shall (a) act reasonably and in good faith with respect to all matters relating to the settlement or disposition of such Claim as the settlement or disposition relates to such Indemnified Party and (b) not settle or otherwise resolve such claim without the prior written consent of such Indemnified Party (which consent shall not be unreasonably withheld, conditioned or delayed). Each Indemnified Party shall cooperate with the Indemnifying Party in its defense of any such Claim in all reasonable respects and shall have the right to be present in person or through counsel at all legal proceedings with respect to such Claim.

**13.4 Insurance.**

Not later than thirty (30) days before the date on which TG or any Affiliate or Sublicensee of TG shall, on a commercial basis, make, use, or sell any Products, and at all times thereafter until the expiration of all applicable statutes of limitation pertaining to any such manufacture, marketing, possession, use, sale of other disposition of any Products, TG will, at its expense, and LICENSOR will, at its expense, with respect to Products, obtain and maintain in full force and effect, comprehensive general liability insurance, including product liability insurance and Clinical Trial insurance in such amounts as each such Party customarily maintains with respect to the development, manufacture and sale of its other products. Notwithstanding the foregoing, either Party may elect to self-insure with respect to any insurance coverage it is required to obtain hereunder as part of a comprehensive self-insurance program adopted by such Party. For the avoidance of doubt, all insurance obligations and associated costs for any sale and development of Product within the Territory and over which LICENSOR has little or no control, shall be borne solely by TG.

**13.5 Warranty Disclaimer.**

EXCEPT AS OTHERWISE EXPRESSLY PROVIDED IN THIS AGREEMENT, NEITHER PARTY MAKES ANY WARRANTY WITH RESPECT TO ANY KNOW-HOW, GOODS, SERVICES, RIGHTS OR OTHER SUBJECT MATTER OF THIS AGREEMENT AND EACH PARTY HEREBY DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT.

**13.6 No Warranty of Success.**

Nothing contained in this Agreement shall be construed as a warranty, either express or implied, on the part of either Party that (a) the Development Program will yield a Product or otherwise be successful or meet its goals, time lines or budgets, or (b) the outcome of the Development Program will be commercially exploitable in any respect.

**13.7 Limited Liability.**

EXCEPT AS SET FORTH UNDER SECTIONS 13.1 OR 13.2, NEITHER PARTY SHALL BE LIABLE TO THE OTHER PARTY OR ANY OF ITS AFFILIATES FOR (I) ANY SPECIAL, PUNITIVE, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING, WITHOUT LIMITATION, LOST PROFITS OR LOST REVENUES, OR (II) COST OF PROCUREMENT OF SUBSTITUTE GOODS, KNOW-HOW OR SERVICES, WHETHER UNDER ANY CONTRACT, WARRANTY, NEGLIGENCE, STRICT LIABILITY OR OTHER LEGAL OR EQUITABLE THEORY.

**14. MISCELLANEOUS**

**14.1 Disputes; Consent to Jurisdiction.**

The Parties shall use reasonable efforts to settle any Disputed Matter arising from or related to this Agreement or the breach thereof (each, a “Dispute”) by promptly referring any such dispute to the Executive Officer of each Party. If the Executive Officers are unable to resolve any Dispute within thirty (30) days of the date on which the Dispute was referred to them for resolution, the Dispute shall be subject to the sole jurisdiction of, and venue in, the U.S. federal courts of competent jurisdiction located within Boston, Massachusetts, USA (if available), and otherwise the state courts of competent jurisdiction located within Boston, Massachusetts, USA. TG and LICENSOR each irrevocably consent to the jurisdiction of such courts, irrevocably waive any objection based on inconvenience of forum, and agree that process may be served in the manner provided herein for giving notices or otherwise as allowed by Massachusetts or applicable federal law. Notwithstanding the foregoing, either Party shall have the right, without waiving any right or remedy available to such Party under this Agreement or otherwise, to seek and obtain from any court of competent jurisdiction any interim or provisional relief that is necessary or desirable to protect the rights or property of such Party.

**14.2 Notices.**

All notices and communications shall be in writing and delivered personally or by internationally-recognized overnight express courier providing evidence of delivery or mailed via certified mail, return receipt requested, addressed as follows, or to such other address as may be designated from time to time:

If to LICENSOR:	GTC Biotherapeutics, Inc. 175 Crossing Boulevard Framingham, MA 01701 Attention: _____ Tel.: 508-620-9700 Fax: _____
	LFB Biotechnologies S.A.S. 3 avenue des Tropiques B.P. 305-Les Ulis- 91958 Courtaboeuf Cedex, France Attention: _____ Tel.: _____ Fax: _____



LFB/GTC LLC  
175 Crossing Boulevard  
Framingham, Massachusetts 01701  
Attention: \_\_\_\_\_  
Tel. \_\_\_\_\_  
Fax: \_\_\_\_\_

With a copy to:

Mintz Levin Cohn Ferris Glovsky and Popeo, P.C.  
One Financial Center  
Boston, MA 02111  
Attention: Brian P. Keane, Esq.  
Tel.: 617-542-6000  
Fax: 617-542-2241

If to TG:

TG Therapeutics, Inc.  
787 Seventh Avenue  
48<sup>th</sup> Floor  
New York, NY 10019  
Attn: \_\_\_\_\_  
Tel: \_\_\_\_\_  
Fax: \_\_\_\_\_

With a copy to:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Attention: \_\_\_\_\_  
Tel: \_\_\_\_\_  
Fax: \_\_\_\_\_

Except as otherwise expressly provided in this Agreement or mutually agreed in writing, any notice, communication or document (excluding payment) required to be given or made shall be deemed given or made and effective upon actual receipt or, if earlier, (a) three (3) Business Days after deposit with an internationally-recognized overnight express courier with charges prepaid, or (b) five (5) Business Days after mailed by certified, registered or regular mail, postage prepaid, in each case addressed to a Parties at its address stated above or to such other address as such Party may designate by written notice given in accordance with this Section 14.2.

**14.3 Governing Law.**

This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware, without regard to the application of principles of conflicts of law.

**14.4 Competition Law.**

LICENSOR and TG agree that nothing in this Agreement shall be interpreted in a way that conflicts with EC Block Exemption No: 418/85 on research and development agreements, or EC Block Exemption No: 240/96 on technology transfer agreements, as issued by the European Commission (as these may be amended or replaced from time to time).

**14.5 Binding Effect.**

This Agreement shall be binding upon and inure to the benefit of the Parties and their respective legal representatives, successors and permitted assigns.

**14.6 Headings.**

Section and subsection headings are inserted for convenience of reference only and do not form a part of this Agreement.

**14.7 Counterparts.**

This Agreement may be executed simultaneously in two or more counterparts, each of which shall be deemed an original and both of which, together, shall constitute a single agreement.

**14.8 Amendment; Waiver.**

This Agreement may be amended, modified, superseded or canceled, and any of the terms of this Agreement may be waived, only by a written instrument executed by each Party or, in the case of waiver, by the Party or Parties waiving compliance. The delay or failure of either Party at any time or times to require performance of any provisions shall in no manner affect the rights at a later time to enforce the same. No waiver by either Party of any condition or of the breach of any term contained in this Agreement, whether by conduct, or otherwise, in any one or more instances, shall be deemed to be, or considered as, a further or continuing waiver of any such condition or of the breach of such term or any other term of this Agreement.

**14.9 No Third Party Beneficiaries.**

Except as set forth in Sections 13.1 and 13.2, no Third Party (including, without limitation, employees of either Party) shall have or acquire any rights by reason of this Agreement.

**14.10 Section 365(n).**

All licenses granted under this Agreement are deemed to be, for purposes of Section 365(n) of the U.S. Bankruptcy Code, licenses of right to "intellectual property" as defined in Section 101 of such Code. The Parties agree that TG may fully exercise all of its rights and elections under the U.S. Bankruptcy Code and any foreign equivalent thereto in any country having jurisdiction over a Party or its assets. The Parties further agree that, in the event TG elects to retain its rights as a licensee under such Code, TG shall be entitled to complete access to any technology licensed to it hereunder and all embodiments of such technology. Such embodiments of the technology shall be delivered to the TG not later than the commencement of bankruptcy proceedings against LICENSOR, upon written request, unless LICENSOR elects to perform its obligations under the Agreement, or if not so delivered, upon the rejection of this Agreement by or on behalf of LICENSOR, upon written request.

**14.11 Purposes and Scope.**

The Parties hereto understand and agree that this relationship is limited to the activities, rights and obligations as set forth in this Agreement. Nothing in this Agreement shall be construed (a) to create or imply a general partnership between the Parties, (b) to make either Party the agent of the other for any purpose, (c) to alter, amend, supersede or vitiate any other arrangements between the Parties with respect to any subject matters not covered hereunder, (d) to give either Party the right to bind the other, (e) to create any duties or obligations between the Parties except as expressly set forth herein, or (f) to grant any direct or implied licenses or any other right other than as expressly set forth herein.

**14.12 Assignment and Successors.**

Neither this Agreement nor any obligation of a Party hereunder may be assigned by either Party without the consent of the other which shall not be unreasonably withheld, except that each Party may assign this Agreement and the rights, obligations and interests of such Party, (a) in whole or in part, to any of its Affiliates, or (b) in whole, but not in part, to any purchaser of all of its assets or all of its assets to which this Agreement relates or shares representing a majority of its common stock voting rights or to any successor corporation resulting from any merger, consolidation, share exchange or other similar transaction.

Notwithstanding the foregoing, by signing the Agreement, TG is deemed to consent that LFB BIOTECHNOLOGIES, GTC and/ or LFB / GTC LLC may, at any time, assign their rights and obligations under the Agreement to any of them or to any of their Affiliates.

**14.13 Force Majeure.**

Neither TG nor LICENSOR shall be liable for failure of or delay in performing obligations set forth in this Agreement, and neither shall be deemed in breach of its obligations, if such failure or delay is due to a Force Majeure. In event of such Force Majeure, the Party affected shall use reasonable efforts to cure or overcome the same and resume performance of its obligations hereunder.

**14.14 Interpretation.**

The Parties hereto acknowledge and agree that: (a) each Party and its counsel reviewed and negotiated the terms and provisions of this Agreement and have contributed to its revision; (b) the rule of construction to the effect that any ambiguities are resolved against the drafting Party shall not be employed in the interpretation of this Agreement; and (c) the terms and provisions of this Agreement shall be construed fairly as to each Party and not in a favor of or against either Party, regardless of which Party was generally responsible for the preparation of this Agreement. In addition, unless a context otherwise requires, wherever used, the singular shall include the plural, the plural the singular, the use of any gender shall be applicable to all genders, the word "or" is used in the inclusive sense (and/or) and the word "including" is used without limitation and means "including without limitation".

**14.15 Integration; Severability.**

This Agreement, and when executed, the Development Services and Manufacturing Agreement, the Commercial Supply Agreement(s) and the Stock Purchase Agreement set forth the entire agreement with respect to the subject matter hereof and thereof and supersede all other agreements and understandings between the Parties with respect to such subject matter. If any provision of this Agreement is or becomes invalid or is ruled invalid by any court of competent jurisdiction or is deemed unenforceable, it is the intention of the Parties that the remainder of this Agreement shall not be affected.

**14.16 Further Assurances.**

Each of LICENSOR and TG agrees to duly execute and deliver, or cause to be duly executed and delivered, such further instruments and do and cause to be done such further acts and things, including, without limitation, the filing of such additional assignments, agreements, documents and instruments, as the other Party may at any time and from time to time reasonably request in connection with this Agreement or to carry out more effectively the provisions and purposes of, or to better assure and confirm unto such other Party its rights and remedies under, this Agreement.

**[Remainder of page intentionally left blank.]**

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their duly authorized representatives.

**GTC BIOTHERAPEUTICS, INC.**

By: /s/ William K. Heiden  
Name: William K. Heiden  
Title: CEO

**LFB BIOTECHNOLOGIES S.A.S.**

By: /s/ Denis Soubeyran  
Name: Denis Soubeyran  
Title: \_\_\_\_\_

**LFB/GTC LLC**

By: /s/ Denis Soubeyran  
Name: Denis Soubeyran  
Title: \_\_\_\_\_

**TG THERAPEUTICS, INC.**

By: /s/ Michael S. Weiss  
Name: Michael S. Weiss  
Title: CEO and President

**Consent of Independent Registered Public Accounting Firm**

The Board of Directors

Our report on our audit of the consolidated balance sheet of Manhattan Pharmaceuticals, Inc. and Subsidiaries as of December 31, 2011 and the consolidated statements of operations, equity and cash flows for the year and cumulative period then ended, included in this Annual Report on Form 10-K for the year ended December 31, 2011, is dated March 14, 2012. We consent to the incorporation by reference of our report in the following registration statements previously filed by the Company with the Securities and Exchange Commission pursuant to the Securities Act of 1933: the registration statements on forms S-8 with SEC file Nos. 333-48531, 333-15807, 333-112889 and 333-143838.

/s/ J.H. Cohn LLP

Roseland, New Jersey  
March 14, 2012

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**CERTIFICATION OF PERIODIC REPORT  
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Michael S. Weiss, certify that:

1. I have reviewed this annual report on Form 10-K of Manhattan Pharmaceuticals, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the consolidated financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 14, 2012

/s/ Michael S. Weiss

Michael S. Weiss

Executive Chairman, Interim Chief Executive Officer and President

Principal Executive Officer

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## CERTIFICATION OF PERIODIC REPORT PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Sean A. Power, certify that:

1. I have reviewed this annual report on Form 10-K of Manhattan Pharmaceuticals, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the consolidated financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 14, 2012

/s/ Sean A. Power

Sean A. Power

Chief Financial Officer

Principal Financial and Accounting Officer

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**STATEMENT OF CHIEF EXECUTIVE OFFICER OF  
MANHATTAN PHARMACEUTICALS, INC.  
PURSUANT TO 18 U.S.C. SECTION 1350,  
AS ADOPTED PURSUANT TO  
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the annual report of Manhattan Pharmaceuticals, Inc. (the "Company") on Form 10-K for the year ended December 31, 2011 as filed with the Securities and Exchange Commission (the "Report"), I, Michael S. Weiss, Executive Chairman, Interim Chief Executive Officer and President of the Company, certify, pursuant to 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002, that, based on my knowledge:

- 1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and
- 2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 14, 2012

/s/ Michael S. Weiss

Michael S. Weiss

Executive Chairman, Interim Chief Executive Officer and  
President

Principal Executive Officer

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**STATEMENT OF CHIEF FINANCIAL OFFICER OF  
MANHATTAN PHARMACEUTICALS, INC.  
PURSUANT TO 18 U.S.C. SECTION 1350,  
AS ADOPTED PURSUANT TO  
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the annual report of Manhattan Pharmaceuticals, Inc. (the "Company") on Form 10-K for the year ended December 31, 2011 as filed with the Securities and Exchange Commission (the "Report"), I, Sean A. Power, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002, that, based on my knowledge:

- 1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and
- 2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 14, 2012

/s/ Sean A. Power

Sean A. Power

Chief Financial Officer

Principal Financial and Accounting Officer

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