

**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, 2017

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

For the transition period from _____ to _____.



TAPIMMUNE INC.

(Exact name of registrant as specified in its charter)

Nevada

(State or other jurisdiction of
incorporation)

001-37939

(Commission File Number)

45-4497941

(IRS Employer Identification No.)

5 W. Forsyth Street, Suite 200

Jacksonville, FL

(Address of principal executive offices)

32202

(Zip Code)

904-516-5436

(Registrant's telephone number, including area code)

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

Common Stock, Par Value \$0.001

(Title of class)

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) 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 (§ 232.405 of this chapter) 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 checkmark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company.

Large accelerated filer

Accelerated filer

Non-accelerated filer (do not check if a smaller reporting company)

Smaller reporting company

Emerging growth company

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by checkmark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant was approximately \$30,500,000 computed by reference to the price per share (\$3.88) at which the registrant's common equity was last sold, as of June 30, 2017 (the last day of the registrant's most recently completed second fiscal quarter).

The registrant had 10,626,140 shares of common stock outstanding as of March 16, 2018.

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FORWARD LOOKING STATEMENTS

This annual report contains forward-looking statements that involve risks and uncertainties. Any statements contained herein that are not statements of historical fact may be deemed to be forward-looking statements. In some cases, you can identify forward-looking statements by terminology such as “may”, “will”, “should”, “expect”, “plan”, “intend”, “anticipate”, “believe”, “estimate”, “predict”, “potential” or “continue”, the negative of such terms or other comparable terminology. In evaluating these statements, you should consider various factors, including the assumptions, risks and uncertainties outlined in this annual report. Any of these items may cause our actual results to differ materially from any forward-looking statement made in this annual report. Forward-looking statements in this annual report include, statements as to:

- the discovery, development, formulation, manufacturing and commercialization of our compounds, our drug candidates;
- conducting clinical trials internally, with collaborators, or with clinical research organizations;
- our collaboration and strategic relationship strategy; anticipated benefits and disadvantages of entering into such agreements;
- our licensing, investment and commercialization strategies;
- the regulatory approval process, including obtaining U.S. Food and Drug Administration and other international health authorities’ approval for our products in the United States and abroad;
- the safety, effectiveness and potential benefits and indications of our drug candidates and other compounds under development;
- the timing and size of our clinical trials; the compounds expected to enter clinical trials; timing of clinical trial results;
- our ability to manage expansion of our drug discovery and development operations;
- future required expertise relating to clinical trials, manufacturing, sales and marketing;
- obtaining and terminating licenses to products, drug candidates or technology, or other intellectual property rights;
- the receipt from or payments pursuant to collaboration or license agreements resulting from milestones or royalties;
- plans to develop and commercialize products on our own;
- plans to use third party manufacturers;
- expected expenses and expenditure levels; expected uses of cash;
- the adequacy of our capital resources to continue operations;
- the need to raise additional capital;
- our expectations regarding competition;
- our investments, including anticipated expenditures, losses and expenses;
- our patent prosecution and maintenance efforts; and

While these forward-looking statements, and any assumptions upon which they are based, are made in good faith and reflect our current judgment regarding future events, our actual results will likely vary, sometimes materially, from any estimates, predictions, projections, assumptions or other future performance suggested herein. Some of the risks and assumptions include:

- our ability to obtain additional capital when needed;
- fluctuations in net cash provided and used by operating, financing and investing activities;
- our limited operating history;
- our history of operating losses;

- our ability to discover, develop, formulate, manufacture and commercialize our drug candidates;
- the risk of unanticipated delays in, or discontinuations of, research and development efforts;
- the risk that previous preclinical testing or clinical trial results are not necessarily indicative of future clinical trial results;
- risks relating to the conduct of our clinical trials;
- changing regulatory requirements and administrative practice;
- the risk of adverse safety findings;
- the risk that results of our clinical trials do not support submission of a marketing approval application for our drug candidates;
- the risk of significant delays or costs in obtaining regulatory approvals;
- risks relating to our reliance on third party manufacturers, collaborators, and clinical research organizations;
- risks relating to the development of new products and their use by us and our current and potential collaborators;
- risks relating to our inability to control the development of out-licensed compounds or drug candidates;
- risks relating to our collaborators' ability to develop and commercialize drug candidates;
- costs associated with prosecuting, maintaining, defending and enforcing patent claims and other intellectual property rights;
- our ability to maintain or obtain adequate product and clinical trial liability and other insurance coverage;
- the risk that our drug candidates may not obtain or maintain regulatory approval;
- the impact of technological advances and competition, including potential generic competition;
- our ability to compete against third parties with greater resources than ours;
- risks relating to changes in pricing and reimbursements in the markets in which we may compete;
- competition to develop and commercialize similar drug products;
- our ability to obtain and maintain patent protection and freedom to operate for our discoveries and to continue to be effective in expanding our patent coverage;
- the impact of changing laws on our patent portfolio;
- developments in and expenses relating to litigation;
- our ability to in-license drug candidates or other technology;
- fluctuations in net cash provided and used by operating, financing and investing activities;
- the competitive environment in which we operate;
- our dependence on key personnel;
- conflicts of interest of our directors and officers;
- our ability to fully implement our business plan;
- our ability to effectively manage our growth; and
- other regulatory, legislative and judicial developments.

Given these risks and uncertainties, you should not place undue reliance on these forward-looking statements. Except as required by federal securities laws, we undertake no obligation to update any forward-looking statements for any reason, even if new information becomes available or other events occur in the future.

In this report all references to (i) “TapImmune” “we,” “us,” “our” or the “Company” mean TapImmune Inc. ; (ii) “SEC” refers to the Securities and Exchange Commission; (iii) “Securities Act” refers to the United States Securities Act of 1933, as amended; (iv) “Exchange Act” refers to the United States Securities Exchange Act of 1934, as amended; and (v) all dollar amounts refer to United States dollars unless otherwise indicated.

Calculation of Aggregate Market Value of Non-Affiliate Shares

For purposes of calculating the aggregate market value of shares of our common stock held by non-affiliates as set forth on the cover page of this Annual Report on Form 10-K, we have assumed that all outstanding shares are held by non-affiliates, except for shares held by each of our executive officers, directors and 5% or greater stockholders. In the case of 5% or greater stockholders, we have not deemed such stockholders to be affiliates, other than Eastern Capital Limited, unless there are facts and circumstances which would indicate that such stockholders exercise any control over our company. These assumptions should not be deemed to constitute an admission that all executive officers, directors and 5% or greater stockholders are, in fact, affiliates of our company, or that there are no other persons who may be deemed to be affiliates of our company. Further information concerning shareholdings of our executive officers, directors and principal stockholders can be located in Part III, Item 12 of this Annual Report on Form 10-K.

PART I

ITEM 1. BUSINESS

Company Overview

We are a clinical-stage immuno-oncology company specializing in the development of innovative peptide and gene-based immunotherapeutics and vaccines for the treatment of cancer and metastatic disease. We are actively advancing our clinical programs by expanding our Folate Receptor Alpha program (TPIV200) for breast and ovarian cancers and our HER2/neu+ peptide antigen program (TPIV100/110) in Phase II clinical trials. In parallel, we are developing a proprietary DNA expression technology named PolyStart™ to improve the ability of the cellular immune system to recognize and destroy diseased cells. We plan to complete the pre-clinical development of our PolyStart™ vaccine and move it into the clinic as an integral component of a prime-boost vaccine methodology.

Our Cancer Vaccines

In contrast to standard therapies for cancer treatment including surgery, radiation therapy and chemotherapy that imprecisely target cancer cells and normal cells, we are developing vaccines that precisely target candidate breast cancer(s), colorectal cancer(s), ovarian cancer(s) and non-small cell lung cancer(s). We are currently developing three core technology platforms:

(1) an exclusively licensed peptide-based vaccine compositions and methods of use for the treatment of HER2/neu+ breast cancer that overexpresses Human Epidermal Growth Factor Receptor 2 (HER2/neu+) (TPIV100/110),

(2) an exclusively licensed peptide-based vaccine compositions and methods of use for treating breast and ovarian cancers that overexpress Folate Receptor Alpha (TPIV200), and

(3) a wholly-owned DNA nucleic acid-based vaccine compositions and methods of use technology (PolyStart™) for treatment of various cancers or infectious disease.

To enhance stockholder value and taking into account development timelines, we plan to focus on advancing our clinical programs including our Folate Receptor Alpha peptide antigen program for breast and ovarian cancer and our HER2/neu+ peptide antigen program into Phase II clinical trials. In parallel, we plan to complete the preclinical development of our PolyStart™ technology as an integral component of our prime-and-boost vaccine methodology. The use of naturally processed T-cell antigens discovered using samples derived from cancer patients plus our PolyStart™ expression technology to improve antigen presentation to T-cells could not only produce an effective cancer vaccine in its own right but also to enhance the efficacy of other immunotherapy approaches such as CAR-T and PD1 inhibitors for example.

Products and Technology in Development

Product/ Candidate	Description	Application	Status
TPIV100/110 HER2/neu+ Breast Cancer Vaccine	Peptide Vaccine	Treatment of HER2/neu+ Breast Cancer	Phase I trial completed Phase I(b) trial to start in 2018 Phase I/II to start in 2018(TPIV110)
TPIV200 Folate Receptor Alpha Vaccine	Peptide Vaccine	Treatment of Folate Alpha/Triple-Negative Breast and Ovarian Cancer	Phase I trial completed Multiple Phase II trials started in 2016 and 2017
PolyStart™	Nucleic acid expression technology	Broad Application to “Prime”- and- “Boost”	Preclinical

CLINICAL

For perspective, we note that clinical trials to support new drug applications are typically conducted in three sequential phases, although the phases may overlap. During Phase I, there is an initial introduction of the therapeutic candidate into healthy human subjects or patients. For an immunotherapeutic vaccine in particular, Phase I studies are generally conducted in cancer patients that have previously received one or another current standard of care and include the measurement of cellular immune responses. Phase II usually involves studies in a more focused patient population in order to carefully assess clinical activity of the drug in specific targeted indications, dosage tolerance (*i.e.*, dose escalation) and optimal dosage, while continuing to identify possible adverse effects and safety risks. If the therapeutic candidate is found to be potentially effective and to have an acceptable safety profile in Phase II evaluations, Phase III trials are undertaken to further demonstrate clinical efficacy and to further test for safety within an expanded patient population at geographically dispersed clinical trial sites.

Human Clinical Trials – HER2/neu+ Breast Cancer – Mayo Foundation

On June 1, 2010, we signed an exclusive licensing option agreement with the Mayo Foundation for Medical Education and Research (“Mayo Foundation”), Rochester, Minnesota for clinical development of a new HER2/neu+ breast cancer vaccine technology. An Investigational New Drug (“IND”) application for Phase I human clinical trial on the HER2/neu+ cancer vaccine in collaboration with the Mayo Foundation was allowed by the Food and Drug Administration (“FDA”) in July 2011 and the Mayo Institutional Review Board approved the trial on May 4, 2012. Patients had histologically confirmed Stage II-III HER2/neu+ breast cancer and had completed systematic therapy at least 90 days prior to treatment and were without evidence of disease. Patient dosing has been completed and final safety analysis on all the patients treated has been completed. The vaccine, comprising four class II peptides, was well tolerated with mild adverse effects. In addition, 19 out of 20 evaluable patients showed robust T-cell immune responses to the antigens in the vaccine composition (Source: The Journal of Immunology: January 1, 2013 190:479-488). These results provided the rationale for advancement into Phase II. An additional secondary endpoint incorporated into this Phase I Trial was a two-year follow on recording time to disease recurrence in the participating breast cancer patients. A second trial is being started in 2018 that uses a novel vaccine strategy in patients with DCIS to eliminate disease and protect from recurrence.

For Phase I(b)/II studies, we plan to add a Class I peptide, licensed from the Mayo Clinic (April 16, 2012), to the four Class II peptides. Management believes that the combination of Class I and Class II HER2/neu+ antigens gives us the leading HER2/neu+ vaccine platform. As the Folate Receptor Alpha vaccine is our lead product, our plans are now initiating formulation studies to progress the HER2/neu+ vaccine towards a Phase II Clinical Trial in 2018.

Human Clinical Trials – Folate Alpha Breast and Ovarian Cancer – Mayo Foundation

Folate Receptor Alpha (“FRa”) is overexpressed in over 80% of breast cancers and in addition, over 90% of ovarian cancers, for which the only treatment options are surgery, radiation therapy and chemotherapy, leaving a very important and urgent clinical need for a new therapeutic. Time to recurrence is relatively short for this type of cancer and survival prognosis is extremely poor after recurrence. In the United States alone, there are approximately 30,000 ovarian cancer patients and 40,000 triple-negative breast cancer patients newly diagnosed every year.

We have completed a 21-patient Phase I clinical trial for the Folate Receptor Alpha Vaccine. Twenty-one patients with breast or ovarian cancer, who had undergone standard surgery and adjuvant treatment, were treated with one cycle of cyclophosphamide (given days 1-7 and 15-22 of 28). Following this, patients were vaccinated intradermally at three sites with a mixture of the five class II FRa peptides on day one of a 28-day cycle for a maximum of six vaccination cycles. The vaccine was well-tolerated and safe and 20 out of 21 evaluable patients showed positive immune responses, providing a strong rationale for progressing to Phase II trials. Further, the data showed that 16 out of 16 patients in the observation stage still showed immune responses (Source: Data published in Journal of Clinical Oncology at ASCO in Chicago May 2015). We have developed a commercial quality lyophilized formulation of the vaccine in a single vial for reconstitution and injection. Good Manufacturing Practice (“GMP”) manufacturing of initial batch for initial Phase II trials has been completed.

On July 27, 2015, we exercised our option agreement with Mayo Foundation with the signing of a worldwide exclusive license agreement to commercialize a proprietary Folate Receptor Alpha vaccine technology for all cancer indications. As part of this agreement, the IND from the Folate Receptor Alpha Phase I Trial was transferred from Mayo Foundation to us for amendment for Phase II Clinical Trials on our lead product.

On September 15, 2015, we announced that our collaborators at the Mayo Foundation had been awarded a grant of \$13.3 million from the U.S. Department of Defense. This grant, commencing September 15, 2015, will cover the costs for a 280-patient Phase II Clinical Trial of Folate Receptor Alpha Vaccine in patients with triple-negative breast cancer. We will work closely with Mayo Foundation on this clinical trial by providing clinical and manufacturing expertise as well as providing GMP vaccine formulations. These vaccine formulations are being developed for multiple Phase II clinical programs in triple-negative breast and ovarian cancer in combination with other immunotherapeutics. This Phase II study of TPIV200 in the treatment of triple-negative breast cancer began enrolling patients in late 2017.

On December 9, 2015, we announced that we received Orphan Drug Designation from the U.S. Food & Drug Administration's Office of Orphan Products Development ("OOPD") for our cancer vaccine TPIV200 in the treatment of ovarian cancer. The TPIV200 ovarian cancer clinical program will now receive benefits including tax credits on clinical research and seven-year market exclusivity upon receiving marketing approval. TPIV200 is a multi-epitope peptide vaccine that targets Folate Receptor Alpha which is overexpressed in multiple cancers including over 90% of ovarian cancer cells.

On February 3, 2016, we announced that the U.S. FDA designated the investigation of multiple-epitope Folate Receptor Alpha Peptide Vaccine (TPIV200) with GM-CSF adjuvant for maintenance therapy in subjects with platinum-sensitive advanced ovarian cancer who achieved stable disease or partial response following completion of standard-of-care chemotherapy, as a Fast Track Development Program. We began enrolling a Phase II study in this indication in 2017.

We have opened multiple clinical sites and have completed enrollment of patients in a Phase II trial of our Folate Receptor Alpha cancer vaccine, TPIV200, in the treatment of triple-negative breast cancer, one of the most difficult-to-treat cancers representing a clear unmet medical need. The open-label, 80-patient clinical trial is designed to evaluate dosing regimens, efficacy, and immune responses in women with triple-negative breast cancer. Key data from the trial is expected to be included in a future New Drug Application submission to the FDA for marketing clearance. This trial is sponsored and conducted by TapImmune.

On April 21, 2016, we announced our participation in an ovarian cancer study sponsored by Memorial Sloan Kettering Cancer Center in New York City in collaboration with AstraZeneca Pharmaceuticals in ovarian cancer patients who are not responsive to platinum, a commonly used chemotherapy for ovarian cancer. This study, a Phase II study of TPIV200 is currently enrolling ovarian cancer patients and is designed to look at the effects of combination therapy with AstraZeneca's checkpoint inhibitor durvalumab. The study will enroll 40 patients and is open-label. Because they are unresponsive to platinum, these patients have no real options left. If the combination therapy proves effective, we believe it would address a critical unmet need. TPIV200 has received Orphan Drug designation for use in the treatment of ovarian cancer. Although we have no business relationship with AstraZeneca, we are paying for one-half of the costs of the clinical study in addition to providing our TPIV200 for the study.

A Company-sponsored Phase II study in platinum-sensitive ovarian cancer patients was initiated in 2017. This study is designed to evaluate TPIV200 with GM-CSF in a randomized, placebo-controlled fashion during the first maintenance period after primary surgery and chemotherapy. Patients at this stage of their treatment have the highest potential for an immunotherapeutic effect and no other approved treatment options. The study will enroll up to 120 patients over the next year and a half, with an interim analysis planned in the first quarter of 2019.

PRECLINICAL

PolyStart™

In parallel with the above completed Phase I clinical trials and upcoming Phase II trials, we plan to complete preclinical development of the PolyStart™ technology as an integral component of our "Prime"-and- "Boost" vaccine methodology. Unlike other vaccine technologies that narrowly address the initiation of an immune response, our "Prime"-and- "Boost" approach broadly stimulates the cellular immune system by enhancing the function of killer T-cells (CD8+) and helper T-cells (CD4+). Our peptide immunotherapeutic approach may be coupled with our developed in-house PolyStart™ nucleic acid-based technology designed to enhance T-cell antigen presentation on the surface of appropriate populations of presenting cells. Our PolyStart™ technology directs the translation and subsequent endogenous processing of antigenic T-cell epitopes contained within a poly-antigen array(s) at four times the level of conventional comparator systems, thereby providing a greater signal/propensity to attract and directly interact with a patient's T-cells. Accordingly, elevated levels of target specific cell surface presented T-cell antigen(s) are correspondingly expected to more effectively engage, activate and expand antigen specific killer T-cell population(s) that can then seek out and destroy target cells (e.g., cancer cells). Moreover, our versatile PolyStart™ technology is designed to express either Class I CD8+ killer or Class II CD4+ helper T-cell antigenic epitopes. The nucleic acid-based platform may also represent a second stand-alone vaccine technology.

Our PolyStart™ technology was invented in-house and is therefore not subject to any licensing fees or downstream royalty payments. The PolyStart™ technology composition can be administered in the form of a plasmid deoxyribonucleic acid (“DNA”) or incorporated into a viral delivery system via ribonucleic acid (“RNA”) or DNA. The PolyStart™ technology comprises two portions, one supporting high level of expression and the other a T-cell peptide antigen array (“PAA”). The antigens making up the PAA are processed inside a patient’s own cells where they are then presented on the cell surface visible for T-cell recognition, activation and expansion. We have confirmed that the PolyStart™/PAA technology works in preclinical studies in context with a smallpox vaccine candidate. However, it is important to understand that this is a platform technology which can be adapted to essentially any T-cell peptide antigen targeted indication, including HER2/neu+. The PolyStart™ technology combined with our peptide-based technology is an ideal opportunity for developing an effective prime-plus-boost vaccination methodology. On February 7, 2017, we announced that we received a Notice of Allowance from the U.S. Patent and Trademark Office of our patent application titled, “Chimeric nucleic acid molecules with non-AUG initiation sequences and uses thereof,” which represents our first patent on our PolyStart™ program. We anticipate additional patent filings in connection with our research and development in this area.

Our Infectious Disease Program

Management believes that PolyStart™ may have broad use for infectious disease vaccines but any development in this area will rely on collaboration with others having specific expertise and the use of non-dilutive funding”. We are actively seeking business development and out-licensing opportunities with this asset.

Mayo Foundation for Medical Education and Research Relationships

As part of our business strategy, we establish business relationships, including collaborative arrangements with other companies and medical research institutions to assist in the clinical development of certain of our drugs and drug candidates and to provide support for our research programs.

Below is a brief description of our significant business relationships and collaborations and related license agreements with Mayo Foundation that expand our pipeline and provide us with certain rights to existing and potential new products and technologies.

On May 26, 2010, we signed a Technology Option Agreement with the Mayo Foundation in Rochester, Minnesota, for the evaluation of HER2/neu+ peptide epitopes as antigens for a breast cancer vaccine. The agreement grants us an exclusive worldwide option to become the exclusive licensee of the technology after completion of Phase I clinical trials.

Following approval of the IND by the FDA in July 2011, we executed a Sponsored Research Agreement with the Mayo Foundation for the clinical trial.

Mayo Patent & Know-How License

On March 25, 2012, we entered into a Patent & Know-How License Agreement with the Mayo Foundation pursuant to which we acquired certain intellectual property rights from the Mayo Foundation for the development and commercialization of certain products, methods and processes property relating to a proprietary HER2/neu+ technology.

The Mayo Foundation granted us a license (with a right to sublicense) on a worldwide basis to make, sell and use products for prophylactic and therapeutic use. This license is an exclusive license for products that are based on the intellectual property and non-exclusive for products that are based on Mayo Foundation know-how and materials. The intellectual property that is being licensed includes U.S. provisional patent application number 61600480 (titled “Methods and materials for generating CD8+ T-cells having the ability to recognize cancer cells expressing a HER2/neu+ polypeptide”), and provisionals, divisionals, continuations and continuations-in-part.

Under this agreement, and subject to certain exceptions, we are responsible for, among other things, developing the technology under the Patent Rights to bring Licensed Products (as defined in the agreement) to market and costs of filing, prosecution and maintenance of the Patent Rights. Mayo Foundation controls the prosecution and maintenance of the Patent Rights in consultation with us.

The Mayo Foundation granted this license in exchange for an upfront payment of \$250,000 that we paid in three installments. In addition to the upfront payment, we are to pay an annual license maintenance fee, milestone fees, royalty fees (which will be subject to a minimum annual royalty fee once royalty fees are due), and a \$500,000 diligence fee had a Phase I clinical trial for a Licensed Product not been initiated prior to the fifth anniversary of the agreement and a \$2,000,000 diligence fee if we fail to initial a Phase II clinical trial for a Licensed Product prior to the eighth anniversary of the agreement.

We have agreed to indemnify and hold Mayo Foundation harmless from any damages caused as a result of (i) the practice or exercise of any rights and assignments granted by the agreement by or on behalf of us, any affiliate, or any sub-licensee; (ii) research, development, design, manufacture, distribution, use, sale, importation, exportation or other disposition of Licensed Products; (iii) our, any affiliates, or any sub-licensee's act or omission; and (iv) third party suits for patent infringement involving a Licensed Product

The term of this agreement runs from March 25, 2012 until the date of the last to expire of the Valid Claims (as defined in the agreement), provided that Mayo Foundation may terminate the agreement if, among other matters, (i) 45 days after providing us with notice of a material breach of this agreement, we fail to cure such breach, (ii) we fail to initiate a Phase III clinical trial for a Licensed Product prior to the tenth anniversary of the agreement, and (iii) we cease to conduct business in the normal event of operations or become insolvent or bankrupt. We may voluntarily terminate the agreement at any time upon written notice to Mayo Foundation.

Mayo HER2/neu+ License

On May 4, 2016, we entered into a License and Assignment Agreement with Mayo Foundation ("Mayo Foundation HER2/neu+ License") pursuant to which we acquired certain intellectual property rights from the Mayo Foundation for the development and commercialization of certain products, methods and processes property relating to any cancer indication in which the HER2/neu+ antigen is overexpressed. The Mayo Foundation HER2/neu+ License resulted from our exercise of an option that was issued pursuant to a Technology Option Agreement that we entered into with the Mayo Foundation on May 25, 2010.

The Mayo Foundation granted us a license (with a right to sublicense) on a worldwide basis to make, sell and use products for therapeutic use against breast, ovarian, lung and any other cancers that overexpress HER2/neu+ antigens. This license is an exclusive license for products that are based on the intellectual property and non-exclusive for products that are based on Mayo Foundation know-how and materials. The intellectual property that is being licensed includes (i) U.S. patent application numbers 12/740,562 and 14/480,365, divisionals, continuations and continuations in part, and (ii) U.S. provisional application 60/984,646 and PCT/US2008/081799.

Under the Mayo Foundation HER2/neu+ License, and subject to certain exceptions, we are responsible for, among other things, developing the technology under the Patent Rights to bring Licensed Products (both as defined in the Mayo Foundation HER2/neu+ License) to market and costs of filing, prosecution and maintenance of the Patent Rights. Mayo Foundation has sole control over the protection, defense, enforcement, maintenance abandonment and other handling of the Know-How (as defined in the Mayo Foundation HER2/neu+ License) and Materials (as defined in the Mayo Foundation HER2/neu+ License).

The Mayo Foundation granted this license in exchange for an initial payment of \$300,000. The Mayo Foundation assigned to us IND # 14749, and we assumed all responsibility and liability for this investigative new drug application. In addition to the initial payment, we are to pay an annual license maintenance fee, milestone fees and royalty fees (which will be subject to a minimum annual royalty fee once royalty fees are due).

We have agreed to indemnify and hold Mayo Foundation harmless from any damages caused as a result of (i) the practice or exercise of any rights and assignments granted by the agreement by or on behalf of us or any sub-licensee; (ii) research, development, design, manufacture, distribution, use, sale, importation, exportation or other disposition of Licensed Products; (iii) our or any sub-licensee's act or omission, including negligence or willful misconduct; and (iv) third party suits for patent infringement involving a Licensed Product.

The term of this agreement runs from May 4, 2016 until the date of our last obligation to make payments under the agreement, provided that Mayo Foundation may terminate the agreement if, among other matters, (i) 30 days after providing us with notice of a material breach of this agreement, we fail to cure such breach, (ii) 90 days after providing us with written notice, we fail to meet either of the following diligence events (a) initiate a Phase II clinical trial for a Licensed Product prior to the second anniversary of the agreement and, once initiated, keep current on all of our Phase II funding obligations and (b) initiate a Phase IIB or III clinical trial for a Licensed Product prior to the fifth anniversary of the agreement, (iii) we fail to make a sale of a Licensed Product by May 4, 2026, and (iv) we cease to conduct business in the normal event of operations or become insolvent or bankrupt. We may voluntarily terminate the agreement at any time upon written notice to Mayo Foundation.

Mayo Folate Receptor Alpha License

On July 21, 2015, we entered into a License and Assignment Agreement with Mayo Foundation (“Mayo Foundation FRa License”) pursuant to which we acquired certain intellectual property rights from the Mayo Foundation for the development and commercialization of certain products, methods and processes property relating to a Folate Receptor Alpha immunotherapeutic vaccine comprised of a set of unique peptide epitopes targeting breast, lung and ovarian cancer. The Mayo Foundation FRa License resulted from our exercise of an option that we acquired from Ayer Special Situations Fund I, LP (“Ayer”) that was issued pursuant to a Technology Option Agreement that Ayer entered into with the Mayo Foundation on March 18, 2014.

The Mayo Foundation granted us a license (with a right to sublicense) on a worldwide basis to make, sell and use products for therapeutic use against breast, ovarian, lung and other cancers that express Folate Receptor Alpha. This license is an exclusive license for products that are based on the intellectual property and non-exclusive for products that are based on Mayo Foundation know-how and materials. The intellectual property that is being licensed includes (i) U.S. patent application numbers 12/303,054 and 13/202,263, (ii) U.S. patent number 8,486,412 and 8,858,952 and provisionals, (iii) divisionals including 13/917,410 and (iv) continuations including 14/484,057.

Under the Mayo Foundation FRa License, and subject to certain exceptions, we are responsible for, among other things, developing the technology under the Patent Rights to bring Licensed Products (both as defined in the Mayo Foundation FRa License) to market and costs of filing, prosecution and maintenance of the Patent Rights. Mayo Foundation has sole control over the protection, defense, enforcement, maintenance abandonment and other handling of the Know-How (as defined in the Mayo Foundation FRa License) and Materials (as defined in the Mayo Foundation FRa License).

The Mayo Foundation granted this license in exchange for an initial upfront payment of \$350,000. The Mayo Foundation assigned to us IND # 14546, and we assumed all responsibility and liability for this investigative new drug application. In addition to the initial upfront payment, we are to pay additional upfront payments, an annual license maintenance fee, milestone fees and royalty fees (which will be subject to a minimum annual royalty fee once royalty fees are due).

We have agreed to indemnify and hold Mayo Foundation harmless from any damages caused as a result of (i) the practice or exercise of any rights and assignments granted by the Mayo Foundation FRa License by or on behalf of us or any sub-licensee; (ii) research, development, design, manufacture, distribution, use, sale, importation, exportation or other disposition of Licensed Products; (iii) our or any sub-licensee’s act or omission, including negligence or willful misconduct; and (iv) third party suits for patent infringement involving a Licensed Product.

The term of this agreement runs from July 21, 2015 until the date of our last obligation to make payments under this agreement, provided that the Mayo Foundation may terminate this agreement if, among other matters, (i) 30 days after providing us with notice of a material breach of this agreement, we fail to cure such breach, (ii) 90 days after providing us with written notice, we fail to meet either of the following diligence events (a) initiate a Phase II clinical trial for a Licensed Product prior to the 2nd anniversary of the Mayo Foundation FRa License and, once initiated, keep current on all of our Phase II funding obligations and (b) initiate a Phase IIB or III clinical trial for a Licensed Product prior to the 5th anniversary of the Mayo Foundation FRa License, (iii) we fail to make a sale of a Licensed Product by July 21, 2025 and (iv) we cease to conduct business in the normal event of operations or become insolvent or bankrupt. We may voluntarily terminate the Mayo Foundation FRa License at any time upon written notice to Mayo Foundation.

General

Company History

We were incorporated under the laws of the State of Nevada in 1991. We have one wholly-owned and dormant subsidiary named GeneMax Pharmaceuticals Inc. (“GeneMax Pharmaceuticals”). Our common stock is currently listed for trading on the Nasdaq Capital Market under the symbol “TPIV.”

In July 2015, we moved our corporate headquarters to Jacksonville, Florida, to be in closer proximity to our collaborators at Mayo Clinic in Jacksonville, Florida, and our strategic and medical advisors who live in Florida. In July 2017, we moved our corporate headquarters to 5 West Forsyth Street, Jacksonville Florida. We continue to lease a single office at Eastlake Avenue in Seattle, Washington, for the purposes of continuing to develop and patent our PolyStart™ technology.

Over the past three years, we have, in a challenging financing climate, raised sufficient working capital to fund and progress our operations and significantly restructured our balance sheet and capital structure. We believe that we continue to make progress with the resources available to us. With the start of clinical programs and our focus on securing financing from a number of sources, management is confident that our current pathway will secure longer term capital to finance and accelerate our activities. The strength of our science and development approaches is becoming more widely appreciated, particularly as our clinical program generates data and as we embrace additional collaborations with leading institutions and corporations.

While the pathway to successful product development takes time and significant resources, we believe that we have put in place the technical and corporate fundamentals for success. The strength of our product pipeline gives us a unique opportunity to make a major contribution to global health care.

The Immunotherapy Industry for Cancer

Management believes that there is a critical need for more effective cancer therapies. Given the unmet need in the treatment of metastatic cancer combined with our process for harnessing the body’s own immune system to treat certain cancers, we believe that we are positioned to be a leading contributor to solving this problem. The immuno-oncology landscape includes the use of monoclonal antibodies, adoptive T-cell therapies, checkpoint inhibitors and in vivo T-cell vaccines. We believe that our use of peptide antigens that can stimulate both T-killer cells (CD8+) and T-helper cells (CD4+) together with the use of our PolyStart™ expression vector as a “boost” strategy can give us a competitive edge in the in vivo T-cell vaccine sector.

In addition, we continue to pursue the development of an approach, which can allow the cellular immune system to make tumor cells more visible to the immune system. Many cancers are not very “immunogenic”, meaning that the cancers are not able to induce an immune response because they no longer express sufficient levels of key proteins on their cell surface, known as Major Histocompatibility Class (“MHC”) I or MHC Class I proteins. In healthy cells, these proteins provide the information to the immune system that defines whether the cell is healthy or, in the case of cancer or viral infection, abnormal. If the MHC Class I proteins signal that the cells are abnormal, then the immune system’s T-cells are activated to attack and kill the infected or malignant cell.

In many solid tumors and in metastatic cells, antigen presentation is often impaired thus presenting a weakened signal to which the cellular immune system can respond. Management believes that although a number of cancer therapies have been developed that stimulate the immune system, these approaches have often proven ineffective because the cancers remain invisible to the immune system due to this problem. One of our strategic visions is to broadly stimulate the cellular immune system while additionally improving antigen presentation. We believe that the use of our PolyStart™ expression vector for improved expression of antigens and TAP can improve the immune system’s response to a variety of cancers.

In addition to our focus on the cancer vaccines, with adequate funding, we may also pursue the development of prophylactic vaccines against infectious microbes by partnering with other vaccine developers in the infectious disease market.

TapImmune’s Target Market and Strategy

We will focus our product development in oncology, both alone and with corporate partners and/or collaborators, including the Mayo Foundation for HER2/neu+ Breast Cancer, Folate Alpha ovarian and breast cancer. The diversity of cancer types and their overall prevalence create a large need for new and improved treatments. Management believes that there is a significant market opportunity for a cancer treatment that utilizes the highly specific defense mechanisms of the immune system to attack cancers. The goal of our management is to ultimately have the FDA approve our cancer vaccines so that we can secure a portion of this market.

Management also believes that our PolyStart™ expression vector approach will provide a flexible and unique platform for the creation of new vaccines that can rapidly respond to emerging viral threats/bioterrorism in addition to enhancing the efficacy of current vaccines in the treatment of infectious disease. If successful, this platform technology would be a significant advance in vaccine development and it will be a key business development strategy to pursue additional partnerships and joint research and/or development ventures with vaccine manufacturers and pharmaceutical companies to bring new and improved vaccines to market.

Our business strategy in cancer is to take products through Phase II clinical trials and then assess whether to partner with pharmaceutical marketing organizations ahead of Phase III trials or to seek commercialization after Phase II.

The global market for cancer immunotherapy is estimated to grow to more than \$80 billion by 2020 according to ResearchandMarkets.com. Management believes that ultimately our combined technology platform(s) have the potential to develop more effective new vaccines, thereby allowing us to participate in this large market through novel new products and in combination with existing vaccines.

Research and Development Efforts

We direct our research and development efforts towards the advancement of immunotherapeutic and prophylactic vaccine products for the treatment of cancer, using our combined proprietary technologies, relevant killer plus helper T-cell peptide antigens, and PolyStart™ nucleic acid-based expression system(s) expressing antigens. We have focused our efforts initially on the development of a therapeutic vaccine for applications in cancer treatment, while concomitantly demonstrating the breadth of our combined technology platform for the development of prophylactic vaccines. Our product development efforts are opportunistically designed to consider combinations with approved and emerging products in both cancer therapeutics and prophylactic vaccines against microbes. This approach allows us to pursue our own internal product development while positioning us to enter into multiple partnerships and licensing agreements. We have made significant progress in the development of a nucleic acid-based (co-linear PolyStart™) technology which directs the enhanced synthesis of a linear peptide antigen array comprising multiple proprietary T-cell epitopes (CD4+ Helper and CD8+ Killer). In addition, the technology also directs the synthesis of the protein TAP1 associated with the transport of MHC Class I epitopes to the surface of cells. The expression or functioning of this protein is often lowered in tumor cells or virally infected cells and its replacement can enhance antigen presentation. Recent work on this novel expression vector platform has demonstrated that T-cells recognize cell surface presented T-cell peptide epitopes confirming that multiple individual peptides are effectively and functional processed from a linear peptide antigen array and that this leads to peptide specific T-cell killing.

Intellectual Property and Patents

Patents and other proprietary rights are vital to our business operations. We protect our technology through various United States and foreign patent filings, and maintain trade secrets that we own. Our policy is to seek appropriate patent protection both in the United States and abroad for our proprietary technologies and products. An enforceable patent with appropriate claim coverage can provide an advantage over competitors who may seek to employ similar approaches to develop therapeutics, and so the future commercial success of products, and therefore our future success, will be in part dependent on our intellectual property strategy. The information provided in this section should be reviewed in the context of Item 1A, "Risk Factors".

We require each of our employees, consultants and advisors to execute a confidentiality agreement upon the commencement of any employment, consulting or advisory relationship with us. Each agreement provides that all confidential information developed or made known to the individual during the course of the relationship will be kept confidential and not be disclosed to third parties except in specified circumstances. In the case of employees, the agreements provide that all inventions conceived of by an employee shall be our exclusive property.

There can be no assurance that our patents, and any patents that may be issued to us in the future, will afford protection against competitors with similar technology. In addition, no assurances can be given that the patents issued to us will not be infringed upon or designed around by others or that others will not obtain patents that we would need to license or design around. If the courts uphold existing or future patents containing broad claims over technology used by us, the holders of such patents could require us to obtain licenses to use such technology. Patent coverage may also vary from country to country based on the scope of available patent protection. There are also opportunities to obtain an extension of patent coverage for a product in certain countries, which adds further complexity to the determination of patent life.

Intellectual Property

We rely upon a combination of licenses, patents, trade secrets, know-how, and licensing opportunities to develop our business. Our future prospects depend on our ability to protect our intellectual property. We also need to operate without infringing the proprietary rights of third parties.

Patents

Patents and other proprietary rights are vital to our business operations. We protect our technology through various United States and foreign patent filings, and maintain trade secrets that we own. As of December 2017, we held seven U.S. issued patents (two owned, five licensed or option to license), six patent applications pending (two owned, four licensed or option to license), 12 foreign issued/allowed patents, and ten foreign patent applications pending (eight owned, two licensed or option to license). Our policy is to seek appropriate patent protection both in the United States and abroad for our proprietary technologies and product candidates. An enforceable patent with appropriate claim coverage can provide an advantage over competitors who may seek to employ similar approaches to develop therapeutics, and so the future commercial success of products, and therefore our future success, will be in part dependent on our intellectual property strategy. The information provided in this section should be reviewed in the context of the information disclosed elsewhere in this annual report under "Risk Factors". We reassess the value of each patent at the time maintenance fees are due, and in cases where maintaining the patent is judged to be of no significant strategic value we decline to pay the maintenance fee.

There can be no assurance that our patents, and any patents that may be issued to us in the future, will afford protection against competitors with similar technology. In addition, no assurances can be given that the patents issued to us will not be infringed upon or designed around by others or that others will not obtain patents that we would need to license or design around. If the courts uphold existing or future patents containing broad claims over technology used by us, the holders of such patents could require us to obtain licenses to use such technology. Patent coverage may also vary from country to country based on the scope of available patent protection. There are also opportunities to obtain an extension of patent coverage for a product in certain countries, which adds further complexity to the determination of patent life.

We currently have a number of issued and pending patents covering composition of matter of PolyStart™ and TAP. In addition, a number of issued and pending patents cover the HER2/neu+ and Folate Receptor Alpha peptides in our Option to License or License Agreements from the Mayo Foundation.

The following table sets forth information as of December 31, 2017 on each issued patent currently held or licensed by us:

Patent No.	Expiration	Title	Ownership	Jurisdiction Where Granted/Filed
Peptide Based Vaccine (Folate Receptor Alpha, Breast and Ovarian Cancer)				
Patent No. 8,486,412	Expires 2027	Immunity to Folate Receptors	Exclusive License	USA
Patent No. 9,243,033	Expires 2027	Immunity to Folate Receptors	Exclusive License	USA
Received Notice of Allowance	Expires 2027	Immunity to Folate Receptors	Exclusive License	USA
Patent No. 2,685,300	Expires 2027	Immunity to Folate Receptors	Exclusive License	Canada

Patent No.	Expiration	Title	Ownership	Jurisdiction Where Granted/Filed
Peptide Based Vaccine (HER2/neu+ Breast Cancer)				
Patent No. 8,858,952	Expires 2031	Methods and Materials for Generating T Cells	Exclusive License	USA
Patent No. 2013221309	Expires 2033	Methods and Materials for Generating CD8+ T Cells Having the Ability to Recognize Cancer Cells Expressing a HER2/neu+ Polypeptide	Exclusive License	Australia
Patent No. ZL2013380019913.1	Expires 2033	Same as above	Exclusive License	China
Patent No. 2,814,836	Expires 2033	Same as above	Exclusive License	Europe
Patent No. 6,170,076	Expires 2033	Same as above	Exclusive License	Japan
Patent No. 9,814,767	Expires 2033	Same as above	Exclusive License	USA
Patent No. ZL200890124030.6	Expires 2028	HLA-DR Binding Peptides and Their Uses	Exclusive License	China
Patent No. 2,704,397	Expires 2033	Same as above	Exclusive License	Canada
Nucleic Acid Based Vaccine (PolyStart™; infectious disease, breast and ovarian Cancer)				
Patent No. 9,364,523	Expires 2035	Chimeric Nucleic Acid Molecules with Non-AUG	Owned	USA
Patent No. 9,655,956	Expires 2035	Translation Initiation Sequences and uses thereof	Owned	USA
HLA DR Peptide Vaccines				
Patent No. 6,006,265	Expires 2028	HLA-DR Binding Peptides And Their Uses	Exclusive License	Japan
Patent No. 2,215,111	Expires 2028	HLA-DR Binding Peptides And Their Uses	Exclusive License	Europe (DE, FR, GB, IE)

On February 7, 2017, we announced that we received a Notice of Allowance from the U.S. Patent and Trademark Office of our patent application titled, “Chimeric nucleic acid molecules with non-AUG initiation sequences and uses thereof.”

We have exclusively licensed the intellectual property for our TPIV100/110 HER2/neu+ breast cancer vaccine and TPIV200 folate receptor alpha vaccine product candidates from Mayo Foundation for Medical Education and Research. See “Mayo Foundation for Medical Education and Research Relationships.”

The effect of the issued patents is that they provide us with patent protection for the claims covered by the patents. While the expiration of a product patent normally results in a loss of market exclusivity for the covered product or product candidate, commercial benefits may continue to be derived from: (i) later-granted patents on processes and intermediates related to the most economical method of manufacture of the active ingredient of such product; (ii) patents relating to the use of such product; (iii) patents relating to novel compositions and formulations; and (iv) in the United States and certain other countries, market exclusivity that may be available under relevant law. The effect of patent expiration on our product candidates also depends upon many other factors such as the nature of the market and the position of the product in it, the growth of the market, the complexities and economics of the process for manufacture of the active ingredient of the product and the requirements of new drug provisions of the Federal Food, Drug and Cosmetic Act or similar laws and regulations in other countries.

Our pending patent applications cover a range of technologies, including specific embodiments and applications for treatment of various medical indications, improved application methods and adjunctive utilization with other therapeutic modalities. The coverage claimed in a patent application can be significantly reduced before the patent is issued. Accordingly, we do not know whether any of the applications we acquire or license will result in the issuance of patents, or, if any patents are issued, whether they will provide significant proprietary protection or will be challenged, circumvented or invalidated. Because unissued U.S. patent applications are maintained in secrecy for a period of eighteen months and U.S. patent applications filed prior to November 29, 2000 are not disclosed until such patents are issued, and since publication of discoveries in the scientific or patent literature often lags behind actual discoveries, we cannot be certain of the priority of inventions covered by pending patent applications. Moreover, we may have to participate in opposition proceedings in a foreign patent office, or for United States patent applications filed before March 16, 2013, in interference proceedings declared by the United States Patent and Trademark Office to determine priority of invention, or in United States *inter partes* review or post-grant review procedures, any of which could result in substantial cost to us, even if the eventual outcome is favorable to us. There can be no assurance that the patents, if issued, would be held valid by a court of competent jurisdiction. An adverse outcome could subject us to significant liabilities to third parties, require disputed rights to be licensed from third parties or require us to cease using such technology.

We have patents and patent applications in other countries, as well as in the European Patent Office that we believe provide equivalent or comparable protection for our product candidates in jurisdictions internationally that we consider to be key markets. Because of the differences in patent laws and laws concerning proprietary rights, the extent of protection provided by U.S. patents or proprietary rights owned by us may differ from that of their foreign counterparts.

We believe that our patents, the protection of discoveries in connection with our development activities, our proprietary products, technologies, processes and know-how and all of our intellectual property are important to our business. To achieve a competitive position, we rely on trade secrets, non-patented proprietary know-how and continuing technological innovation, where patent protection is not believed to be appropriate or attainable. In addition, as outlined above, we have a number of patent licenses from third parties, some of which important to our business. See “Mayo Foundation for Medical Education and Research Relationships”. There can be no assurance that any of our patents, licenses or other intellectual property rights will afford us any protection from competition.

Trademarks

Our trademarks are of material importance to our business. We currently have pending with the U.S. PTO, an application for registration of the mark of POLYSTART™. We received notice of the registration of the mark TAPIMMUNE from the U.S. PTO. We also have rights to use other names essential to our business. Federally registered trademarks have a perpetual life, as long as they are maintained and renewed on a timely basis and used properly as trademarks, subject to the rights of third parties to seek cancellation of the trademarks if they claim priority or confusion of usage. We regard our trademarks and other proprietary rights as valuable assets and believe they have significant value to us.

Competition

Our drug discovery, development and ultimate commercialization activities face, and will continue to face, intense competition from organizations such as pharmaceutical and biotechnology companies, as well as academic and research institutions and government agencies. We face significant competition from organizations, particularly fully integrated pharmaceutical companies that are pursuing pharmaceuticals that are competitive with our drug candidates. Management believes that a number of companies, which are developing various types of similar in vivo T-cell immunotherapies and therapeutic cancer vaccines to treat cancer, could be our major competitors including: Advaxis Inc., Genzyme Molecular Oncology, Immune Design, Oncothyreon, Celldex, BN Immunotherapeutics, Immunocellular, Galena BioPharma, Antigen Express, Transgene S. A., and Bavarian Nordic. Other immunotherapy approaches including adoptive T-cell therapies, monoclonal antibodies and checkpoint inhibitors also provide competition in the oncology space. In these areas competitors include, Lion Biotechnology, Juno Therapeutics, (formerly) Kite Pharma, Roche Pharmaceuticals, Merck & Co, Bristol Myers Squibb, AstraZeneca plc and Medimmune, LLC. We believe that our in vivo T-cell therapy approaches will be synergistic with these approaches and might even improve them.

Many companies and institutions, either alone or together with their collaborative partners, have substantially greater financial resources, larger drug discovery, development and commercial staffs and significantly greater experience than we do in:

- drug discovery;
- developing products;
- undertaking preclinical testing and clinical trials;
- obtaining FDA and other regulatory approvals of products; and
- manufacturing, marketing, distributing and selling products.

Accordingly, our competitors may succeed in obtaining patent protection, receiving FDA and other regulatory approval or commercializing products that compete with our drug candidates.

In addition, any drug candidate that we successfully develop may compete with existing therapies that have long histories of safe and effective use. Competition may also arise from:

- other drug development technologies and methods of preventing or reducing the incidence of disease;
- new small molecules; or
- other classes of therapeutic agents.

We face, and will continue to face, intense competition from other companies for collaborative arrangements with pharmaceutical and biotechnology companies, for establishing relationships with academic and research institutions and for licenses to drug candidates or proprietary technology. These competitors, either alone or with their collaborative partners, may succeed in developing products that are more effective than ours.

Our ability to compete successfully will depend, in part, on our ability to:

- develop proprietary products;
- develop and maintain products that reach the market first, are technologically superior to and/or are of lower cost than other products in the market;
- attract and retain scientific, product development and sales and marketing personnel;
- obtain patent or other proprietary protection for our products and technologies;
- obtain required regulatory approvals; and
- manufacture, market, distribute and sell any products that we develop.

In a number of countries, including in particular, developing countries, government officials and other groups have suggested that pharmaceutical companies should make drugs available at a low cost. In some cases, governmental authorities have indicated that where pharmaceutical companies do not do so, their patents might not be enforceable to prevent generic competition. Some major pharmaceutical companies have greatly reduced prices for their drugs in certain developing countries. If certain countries do not permit enforcement of any of our patents, sales of our products in those countries, and in other countries by importation from low-price countries, could be reduced by generic competition or by parallel importation of our product. Alternatively, governments in those countries could require that we grant compulsory licenses to allow competitors to manufacture and sell their own versions of our products in those countries, thereby reducing our product sales, or we could respond to governmental concerns by reducing prices for our products. In all of these situations, our results of operations could be adversely affected.

Government Regulation

Our ongoing research and development activities and any manufacturing and marketing of our drug candidates are subject to extensive regulation by numerous governmental authorities in the United States and other countries. Before marketing in the United States, any drug developed by us must undergo rigorous preclinical testing, clinical trials, and an extensive regulatory clearance process implemented by the FDA under the United States Food, Drug and Cosmetic Act and its implementing regulations and, in the case of biologics, the Public Health Service Act. The FDA regulates, among other things, the research, development, testing, manufacture, safety, efficacy, record-keeping, labeling, storage, approval, advertising, promotion, sale and distribution and import and export, of these products.

FDA Review and Approval Process

The regulatory review and approval process is lengthy, expensive and uncertain. The steps generally required before a drug may be marketed in the United States include:

- preclinical laboratory tests, animal studies and formulation studies in compliance with the FDA's Good Laboratory Practice ("GLP") and Good Manufacturing Practice ("GMP") regulations;
- submission to the FDA of an Investigational New Drug application ("IND") for human clinical testing, which must become effective before human clinical trials may commence;
- performance of adequate and well-controlled clinical trials in three phases, as described below, to establish the safety and efficacy of the drug for each indication;
- submission of a New Drug Application ("NDA") or Biologics License Application ("BLA") to the FDA for review;
- random inspections of clinical sites to ensure validity of clinical safety and efficacy data;
- satisfactory completion of an FDA inspection of the manufacturing facility or facilities at which the drug is produced to assess compliance with current good manufacturing practices;
- FDA approval of the NDA or BLA; and
- payment of user and establishment fees, if applicable.

Similar requirements exist within foreign agencies as well. The time required to satisfy FDA requirements or similar requirements of foreign regulatory agencies may vary substantially based on the type, complexity and novelty of the product or the targeted disease.

Preclinical testing includes laboratory evaluation of product pharmacology, drug metabolism, and toxicity which includes animal studies, to assess potential safety and efficacy as well as product chemistry, stability, formulation, development, and testing. The results of the preclinical tests, together with manufacturing information and analytical data, are submitted to the FDA as part of an IND. An IND will automatically become effective 30 days after receipt by the FDA, unless before that time, the FDA raises safety concerns or questions about the conduct of the clinical trial(s) included in the IND. In the latter case, the IND sponsor and the FDA must resolve any outstanding FDA concerns or questions before clinical trials can proceed. We cannot be sure that submission of an IND will result in the FDA allowing clinical trials to commence.

Clinical trials involve the administration of the investigational drug to human subjects under the supervision of qualified investigators and in accordance with good clinical practices regulations covering the protection of human subjects. These regulations require all research subjects to provide informed consent. Clinical trials are conducted under protocols detailing the objectives of the study, the parameters to be used in monitoring safety, and the effectiveness criteria to be evaluated. Each protocol must be submitted to the FDA as part of the IND and each trial must be reviewed and approved by an Institutional Review Board (“IRB”) before it can begin.

Clinical trials typically are conducted in three sequential phases, but the phases may overlap or be combined. Phase I usually involves the initial introduction of the investigational drug into healthy volunteers to evaluate its safety, dosage tolerance, absorption, metabolism, distribution and excretion. Phase II usually involves clinical trials in a limited patient population to evaluate dosage tolerance and optimal dosage, identify possible adverse effects and safety risks, and evaluate and gain preliminary evidence of the efficacy of the drug for specific indications. Phase III clinical trials usually further evaluate clinical efficacy and safety by testing the drug in its final form in an expanded patient population, providing statistical evidence of efficacy and safety, and providing an adequate basis for labeling. We cannot guarantee that Phase I, Phase II or Phase III testing will be completed successfully within any specified period of time, if at all. Furthermore, we, the IRB, or the FDA may suspend clinical trials at any time on various grounds, including a finding that the subjects or patients are being exposed to an unacceptable health risk.

As a separate amendment to an IND, a clinical trial sponsor may submit to the FDA a request for a Special Protocol Assessment (“SPA”). Under the SPA procedure, a sponsor may seek the FDA’s agreement on the design and size of a clinical trial intended to form the primary basis of an effectiveness claim. If the FDA agrees in writing, its agreement may not be changed after the trial begins, except when agreed by FDA or in limited circumstances, such as when a substantial scientific issue essential to determining the safety and effectiveness of a drug candidate is identified after a Phase III clinical trial is commenced and agreement is obtained with the FDA. If the outcome of the trial is successful, the sponsor will ordinarily be able to rely on it as the primary basis for approval with respect to effectiveness. However, additional trials could also be requested by the FDA to support approval, and the FDA may make an approval decision based on a number of factors, including the degree of clinical benefit as well as safety. The FDA is not obligated to approve an NDA or BLA as a result of an SPA agreement, even if the clinical outcome is positive.

Even after initial FDA approval has been obtained, post-approval trials, or Phase IV studies, may be required to provide additional data, and will be required to obtain approval for the sale of a product as a treatment for a clinical indication other than that for which the product was initially tested and approved. Also, the FDA will require post-approval safety reporting to monitor the side effects of the drug. Results of post-approval programs may limit or expand the indication or indications for which the drug product may be marketed. Further, if there are any requests for modifications to the initial FDA approval for the drug, including changes in indication, manufacturing process, manufacturing facilities, or labeling, a supplemental NDA or BLA may be required to be submitted to the FDA.

The length of time and related costs 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 cause the costs of these clinical trials to increase, include:

- slow patient enrollment due to the nature of the protocol, the proximity of patients to clinical sites, the eligibility criteria for the study, competition with clinical trials for other drug candidates or other factors;
- inadequately trained or insufficient personnel at the study site to assist in overseeing and monitoring clinical trials;
- delays in approvals from a study site’s IRB;
- longer than anticipated treatment time required to demonstrate effectiveness or determine the appropriate product dose;
- lack of sufficient supplies of the drug candidate for use in clinical trials;
- adverse medical events or side effects in treated patients; and
- lack of effectiveness of the drug candidate being tested.

Any drug is likely to produce some toxicities or undesirable side effects in animals and in humans when administered at sufficiently high doses and/or for sufficiently long periods of time. Unacceptable toxicities or side effects may occur at any dose level, and at any time in the course of animal studies designed to identify unacceptable effects of a drug candidate, known as toxicological studies, or in clinical trials of our 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 their marketing approval by the FDA or foreign regulatory authorities for any or all targeted indications.

The FDA's fast track and breakthrough therapy designation programs are intended to facilitate the development and expedite the review of drug candidates intended for the treatment of serious or life-threatening conditions and that demonstrate the potential to address unmet medical needs for these conditions. Under these programs, FDA can, for example, review portions of an NDA or BLA for a drug candidate before the entire application is complete, thus potentially beginning the review process at an earlier time.

We cannot guarantee that the FDA will grant any of our requests for fast track or breakthrough therapy designations, that any such designations would affect the time of review or that the FDA will approve the NDA or BLA submitted for any of our drug candidates, whether or not these designations are granted. Additionally, FDA approval of a fast track/breakthrough product can include restrictions on the product's use or distribution (such as permitting use only for specified medical conditions or limiting distribution to physicians or facilities with special training or experience). Approval of such designated products can be conditioned on additional clinical trials after approval.

Sponsors submit the results of preclinical studies and clinical trials to the FDA as part of an NDA or BLA. NDAs and BLAs must also contain extensive product manufacturing information and proposed labeling. Upon receipt, the FDA initially reviews the NDA or BLA to determine whether it is sufficiently complete to initiate a substantive review. If the FDA identifies deficiencies that would preclude substantive review, the FDA will refuse to accept the NDA or BLA and will inform the sponsor of the deficiencies that must be corrected prior to resubmission. If the FDA accepts the submission for review (then deemed a "filing"), the FDA typically completes the NDA or BLA review within a pre-determined time frame. Under the Prescription Drug User Fee Act, the FDA agrees to review NDAs and BLAs under either a standard review or priority review. FDA procedures provide for priority review of NDAs and BLAs submitted for drugs that, compared to currently marketed products, if any, offer a significant improvement in the treatment, diagnosis or prevention of a disease. The FDA seeks to review NDAs and BLAs that are granted priority status more quickly than NDAs and BLAs given standard review status. The FDA's stated policy is to act on 90% of priority NDAs and BLAs within eight months of receipt (or six months after filing, which occurs 60 days after NDA or BLA submission). Although the FDA historically has not met these goals, the agency has made significant improvements in the timeliness of the review process. NDA and BLA review often extends beyond anticipated completion dates due to FDA requests for additional data or clarification, the FDA's decision to have an advisory committee review, and difficulties in scheduling an advisory committee meeting. The recommendations of an advisory committee are not binding on the FDA.

To obtain FDA approval to market a product, we must demonstrate that the product is safe and effective for the patient population that will be treated. If regulatory approval of a product is granted, the approval will be limited to those disease states and conditions for which the product is safe and effective, as demonstrated through clinical trials. Marketing or promoting a drug for an unapproved indication is prohibited. Furthermore, approval may entail requirements for post-marketing studies or risk evaluation and mitigation strategies, including the need for patient and/or physician education, patient registries, medication or similar guides, or other restrictions on the distribution of the product. If an NDA or BLA does not satisfy applicable regulatory criteria, the FDA may deny approval of an NDA or BLA or may issue a complete response, and require, among other things, additional clinical data or analyses.

In Canada, the Therapeutic Products Directorate and the Biologics and Genetic Therapies Directorate of HC ensure that clinical trials are properly designed and undertaken and that subjects are not exposed to undue risk. Regulations define specific Investigational New Drug submission (or IND) application requirements, which must be complied with before a new drug can be distributed for trial purposes. The directorates currently review the safety, efficacy and quality data submitted by the sponsor and approve the distribution of the drug to the investigator. The sponsor of the trial is required to maintain accurate records, report adverse drug reactions, and ensure that the investigator adheres to the approved protocol. Trials in humans should be conducted according to generally accepted principles of good clinical practice. Management believes that these standards provide assurance that the data and reported results are credible and accurate, and that the rights, integrity, and privacy of clinical trial subjects are protected.

Sponsors wishing to conduct clinical trials in Phases I through III of development must apply under a 30-day default system. Applications must contain the information described in the regulations, including: a clinical trial attestation; a protocol; statements to be contained in each informed consent form, that set out the risks posed to the health of clinical trial subjects as a result of their participation in the clinical trial; an investigator's brochure; applicable information on excipients (delivery vehicles); and chemistry and manufacturing information.

The sponsor can proceed with the clinical trial if the directorates have not objected to the sale or importation of the drug within 30 days after the date of receipt of the clinical trial application and Research Ethics Board approval for the conduct of the trial at the site has been obtained. Additional information is available on Health Canada's website - www.hc-sc.gc.ca.

Outside the United States and Canada, our ability to market a product is contingent upon receiving a marketing authorization from the appropriate regulatory authorities. The requirements governing the conduct of clinical trials, marketing authorization, pricing and reimbursement vary widely from country to country. At present, foreign marketing authorizations are applied for at a national level, although within the European Union ("EU") registration procedures are available to companies wishing to market a product in more than one EU member state. If the regulatory authority is satisfied that adequate evidence of safety, quality and efficacy has been presented, a marketing authorization may be granted. This foreign regulatory approval process involves all of the risks associated with FDA approval discussed above and may also include additional risks.

The Orphan Drug Act provides incentives to manufacturers to develop and market drugs for rare diseases and conditions affecting fewer than 200,000 persons in the United States at the time of application for orphan drug designation. The first developer to receive FDA marketing approval for an orphan drug is entitled to a seven-year exclusive marketing period in the United States for the orphan drug indication. However, a drug that the FDA considers to be clinically superior to, or different from, another approved orphan drug, even though for the same indication, may also obtain approval in the United States during the seven-year exclusive marketing period.

Under the FDA Modernization Act of 1997, designation as a Fast Track product for a new drug or biological product means that the FDA will take such actions as are appropriate to expedite the development and review of the application for approval of such product.

Legislation similar to the Orphan Drug Act has been enacted in other countries outside of the United States, including the EU. The orphan legislation in the EU is available for therapies addressing conditions that affect five or fewer out of 10,000 persons, are life-threatening or chronically debilitating conditions and for which no satisfactory treatment is authorized. The market exclusivity period is for ten years, although that period can be reduced to six years if, at the end of the fifth year, available evidence establishes that the product does not justify maintenance of market exclusivity.

Regulation of Manufacturing Process

Even when NDA or BLA approval is obtained, a marketed product, its manufacturer and its manufacturing facilities are subject to continual review and periodic inspections by the FDA. The manufacturing process for pharmaceutical products is highly regulated and regulators may shut down manufacturing facilities that they believe do not comply with regulations. Discovery of previously unknown problems with a product, manufacturer or facility may result in restrictions on the product, manufacturer or facility, including costly recalls or withdrawal of the product from the market. Manufacturing facilities are always subject to inspection by the applicable regulatory authorities.

We and our third-party manufacturers are subject to current Good Manufacturing Practices ("GMP"), which are extensive regulations governing manufacturing processes, including but not limited to stability testing, record keeping and quality standards as defined by the FDA and the European Medicines Agency. Similar regulations are in effect in other countries. Manufacturing facilities are subject to inspection by the applicable regulatory authorities. These facilities, whether our own or our contract manufacturers, must be inspected before we can use them in commercial manufacturing of our related products. We or our contract manufacturers may not be able to comply with applicable GMP and FDA or other regulatory requirements. If we or our contract manufacturers fail to comply, we or our contract manufacturers may be subject to legal or regulatory action, such as suspension of manufacturing, seizure of product, or voluntary recall of product. Furthermore, continued compliance with applicable Good Manufacturing Practices will require continual expenditure of time, money and effort on the part of us or our contract manufacturers in the areas of production and quality control and record keeping and reporting, in order to ensure full compliance.

Post-Approval Regulation

Any products manufactured or distributed by us pursuant to FDA approvals are subject to pervasive and continuing regulation by the FDA, including record-keeping requirements, reporting of adverse experiences with the drug and other reporting, advertising and promotion restrictions. The FDA's rules for advertising and promotion require, among other things, that our promotion be fairly balanced and adequately substantiated by clinical studies, and that we not promote our products for unapproved uses. We must also submit appropriate new and supplemental applications and obtain FDA approval for certain changes to the approved product, product labeling or manufacturing process. On its own initiative, the FDA may require changes to the labeling of an approved drug if it becomes aware of new safety information that the agency believes should be included in the approved drug's labeling. The FDA also enforces the requirements of the Prescription Drug Marketing Act ("PDMA") which, among other things, imposes various requirements in connection with the distribution of product samples to physicians.

In addition to inspections related to manufacturing, we may be subject to periodic unannounced inspections by the FDA and other regulatory bodies related to the other regulatory requirements that apply to marketed drugs manufactured or distributed by us. The FDA also may conduct periodic inspections regarding our review and reporting of adverse events, or related to compliance with the requirements of the PDMA concerning the handling of drug samples. When the FDA conducts an inspection, the inspectors will identify any deficiencies they believe exist in the form of a notice of inspectional observations. The observations may be more or less significant. If we receive a notice of inspectional observations, we likely will be required to respond in writing, and may be required to undertake corrective and preventive actions in order to address the FDA's concerns.

There are a variety of state laws and regulations that apply in the states or localities where our drug candidates may be marketed. For example, we must comply with state laws that require the registration of manufacturers and wholesale distributors of pharmaceutical products in that state, including, in certain states, manufacturers and distributors who ship products into the state even if such manufacturers or distributors have no place of business within the state. Some states also impose requirements on manufacturers and distributors to establish the pedigree of product in the chain of distribution, including some states that require manufacturers and others to adopt new technology capable of tracking and tracing product as it moves through the distribution chain. Any applicable state or local regulations may hinder our ability to market, or increase the cost of marketing, our products in those states or localities.

The FDA's policies may change and additional government regulations may be enacted which could impose additional burdens or limitations on our ability to market products after approval. Moreover, increased attention to the containment of health care costs in the United States and in foreign markets could result in new government regulations which could have a material adverse effect on our business. We cannot predict the likelihood, nature or extent of adverse governmental regulation which might arise from future legislative or administrative action, either in the United States or abroad.

Marketing Exclusivity

The FDA may grant five years of exclusivity in the United States for the approval of NDAs for new chemical entities, and three years of exclusivity for supplemental NDAs, for among other things, new indications, dosages or dosage forms of an existing drug if new clinical investigations that were conducted or sponsored by the applicant are essential to the approval of the supplemental application. Additionally, six months of marketing exclusivity in the United States is available if, in response to a written request from the FDA, a sponsor submits and the agency accepts requested information relating to the use of the approved drug in the pediatric population. The six-month pediatric exclusivity is added to any existing patent or non-patent exclusivity period for which the drug is eligible. Orphan drug products are also eligible for pediatric exclusivity if the FDA requests and the company completes pediatric clinical trials. Under the Biologics Price Competition and Innovation Act, the FDA may grant 12 years of data exclusivity for innovative biological products.

Health Law Compliance

In addition to FDA laws and regulations, we must also comply with various federal and state laws and regulations pertaining to healthcare "fraud and abuse" laws which govern, among other things, our relationships with healthcare providers, and organizations such as specialty pharmacies, wholesalers and group purchasing organizations relating to the marketing and pricing of prescription drug products. Such laws include, without limitation, state and federal anti-kickback, fraud and abuse, false claims, privacy and security, and physician payment sunshine laws.

The federal Anti-Kickback Statute makes it illegal for any person or entity, including a prescription drug manufacturer (or a party acting on its behalf) to knowingly and willfully, directly or indirectly, solicit, receive, offer, or pay any remuneration that is intended to induce the referral of business, including the purchase, order, lease of any good, facility, item or service for which payment may be made under a federal healthcare program, such as Medicare or Medicaid. The term “remuneration” has been broadly interpreted to include anything of value. Several courts have interpreted the statute’s intent requirement to mean that if any one purpose of an arrangement involving remuneration is to induce referrals of federal healthcare covered business, the Anti-Kickback Statute has been violated.

Federal false claims and false statement laws, including the federal civil False Claims Act, prohibit, among other things, any person or entity from knowingly presenting, or causing to be presented, for payment to, or approval by, federal programs, including Medicare and Medicaid, claims for items or services, including drugs, that are false or fraudulent or not provided as claimed. Entities can be held liable under these laws if they are deemed to “cause” the submission of false or fraudulent claims by, for example, providing inaccurate billing or coding information to customers, promoting a product off-label, or for providing medically unnecessary services or items.

The federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, created additional federal criminal statutes that prohibit among other actions, knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program, including private third-party payors, knowingly and willfully embezzling or stealing from a healthcare benefit program, willfully obstructing a criminal investigation of a healthcare offense, and knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of or payment for healthcare benefits, items or services.

HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, or HITECH, and their implementing regulations, require certain types of individuals and entities to protect the privacy, security, and electronic exchange of certain patient data.

The federal Physician Payments Sunshine Act requires certain manufacturers of drugs, devices, biologics and medical supplies for which payment is available under Medicare, Medicaid or the Children’s Health Insurance Program, with specific exceptions, to report annually to the Centers for Medicare & Medicaid Services, or CMS, information related to payments or other transfers of value made to physicians and teaching hospitals, and applicable manufacturers and applicable group purchasing organizations to report annually to CMS ownership and investment interests held by the physicians and their immediate family members.

Analogous state and foreign laws and regulations, such as state anti-kickback and false claims laws, may apply to sales or marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental third-party payors, including private insurers. Additionally, we may be subject to state laws that require pharmaceutical companies to comply with the pharmaceutical industry’s voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government. Further, we may be subject to state laws that require drug manufacturers to report information related to payments and other transfers of value to physicians and other healthcare providers or marketing expenditures, as well as state and foreign laws governing the privacy and security of health information in some circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts. If our operations are found to be in violation of any of these federal, state or foreign laws or regulations, we may be subject to penalties, including without limitation, administrative or civil penalties, imprisonment, damages, fines, disgorgement, exclusion from participation in government healthcare programs, contractual damages, reputational harm, diminished profits and future earnings, or the curtailment or restructuring of our operations.

There are also an increasing number of state laws that require manufacturers to make reports to those states on certain pricing and marketing information. Many of these laws contain ambiguities as to what is required to comply with the laws. Given the lack of clarity in laws and their implementation, our reporting actions could be subject to the penalty provisions of the state authorities.

Healthcare Reform and Reimbursement and Pricing Controls

There has been an increased focus on drug pricing in recent years in the United States. Although there are no direct government price controls over private sector purchases in the United States, there are rebates and other financial requirements for federal and state health care programs. The Medicare Modernization Act, enacted in December 2003, established the Medicare Part D outpatient prescription drug benefit, which is provided primarily through private entities that attempt to negotiate price concessions from pharmaceutical manufacturers. The health care reform legislation enacted in 2010, known as the Affordable Care Act, requires drug manufacturers to pay 50% of the Medicare Part D coverage gap, also known as the “donut hole,” on prescriptions for branded products filled when the beneficiary reaches this coverage. The Deficit Reduction Act of 2005 resulted in changes to the way drug prices are reported to the government and the formula using such information to calculate the required Medicaid rebates. The Affordable Care Act increased the minimum basic Medicaid rebate for branded prescription drugs from 15.1% to 23.1% and requires pharmaceutical manufacturers to pay states rebates on prescription drugs dispensed to Medicaid managed care enrollees. In addition, the Affordable Care Act increased the additional Medicaid rebate on “line extensions” (such as extended release formulations) of solid oral dosage forms of branded products, revised the definition of average manufacturer price by changing the classes of purchasers included in the calculation, and expanded the entities eligible for discounted pricing under the federal 340B drug pricing program. Current orphan drugs are excluded from the expanded 340B hospitals eligible for discounts.

The Affordable Care Act imposes a significant annual fee on companies that manufacture or import branded prescription drug products. The fee (which is not deductible for federal income tax purposes) is based on the manufacturer’s market share of sales of branded drugs and biologics (excluding orphan drugs) to, or pursuant to coverage under, specified U.S. government programs. The Affordable Care Act also contains a number of provisions, including provisions governing the way that health care is financed by both governmental and private insurers, enrollment in federal health care programs, reimbursement changes, the increased use of comparative effectiveness research in health care decision-making, and enhancements to fraud and abuse requirements and enforcement, that are affecting existing government health care programs and will result in the development of new programs. The Affordable Care Act also contains requirements for manufacturers to publicly report certain payments or other transfers of value made to physicians and teaching hospitals. We are unable to predict the future course of federal or state health care legislation and regulations, including regulations that will be issued to implement provisions of the Affordable Care Act. The Affordable Care Act and further changes in the law or regulatory framework that reduce our revenues or increase our costs could also have a material adverse effect on our business, financial condition and results of operations and cash flows.

Public and private health care payors control costs and influence drug pricing through a variety of mechanisms, including through negotiating discounts with the manufacturers and through the use of tiered formularies and other mechanisms that provide preferential access to certain drugs over others within a therapeutic class. Payors also set other criteria to govern the uses of a drug that will be deemed medically appropriate and therefore reimbursed or otherwise covered. Payors may require physicians to seek approval from them before a product will be reimbursed or covered, commonly referred to as prior authorization. In particular, many public and private health care payors limit reimbursement and coverage to the uses of a drug that are either approved by the FDA or appear in a recognized drug compendium. Drug compendia are publications that summarize the available medical evidence for particular drug products and identify which uses of a drug are supported or not supported by the available evidence, whether or not such uses have been approved by the FDA. For example, in the case of Medicare Part D coverage for oncology drugs, the Medicare Modernization Act, with certain exceptions, provides for Medicare coverage of unapproved uses of an FDA-approved drug if the unapproved use is reasonable and necessary and is supported by one or more citations in CMS-approved compendia, such as the National Comprehensive Cancer Network Drugs and Biologics Compendium. Different pricing and reimbursement schemes exist in other countries. For example, in the European Union, governments influence the price of pharmaceutical products through their pricing and reimbursement rules and control of national health care systems that fund a large part of the cost of such products to consumers. The approach taken varies from member state to member state. Some jurisdictions operate positive or negative list systems under which products may only be marketed once a reimbursement price has been agreed. Other member states allow companies to fix their own prices for medicines, but monitor and control company profits and may limit or restrict reimbursement. The downward pressure on health care costs in general, and prescription drugs in particular, has become very intense. As a result, increasingly high barriers are being erected to the entry of new products, as exemplified by the actions of the National Institute for Clinical Excellence in the United Kingdom, which evaluates the data supporting new medicines and passes reimbursement recommendations to the government. In addition, in some countries, cross-border imports from low-priced markets (parallel imports) exert a commercial pressure on pricing within a country.

Manufacturing

Our manufacturing strategy is to contract with third parties to manufacture the raw materials, our active pharmaceutical ingredients (“API”) and finished solid dose products for clinical and ultimately commercial uses. We currently do not operate manufacturing facilities for clinical or commercial production of our drug candidates. In addition, we expect for the foreseeable future to continue to rely on third parties for the manufacture of commercial supplies of the raw materials, API and finished drug product for any drugs that we successfully develop and are approved for commercial sale. In this manner, we expect to continue to build and maintain our supply chain and quality assurance resources.

Manufacturing of our Products

Our supply chain for manufacturing raw materials, API and drug product ready for distribution and commercialization is a multi-step international process. Establishing and managing the supply chain requires a significant financial commitment and the creation and maintenance of numerous third-party contractual relationships.

We contract with third parties to manufacture our drug candidates for clinical purposes. Third-party manufacturers supply us with raw materials, and other third-party manufacturers convert these raw materials into API or convert the API into final dosage form. For most of our drug candidates, once our raw materials are produced, we rely on one third party to manufacture the API, another to make finished drug product and a third to lyophilize, package and label the finished product. While we currently have focused on single vendors for manufacturing of peptide, formulation development, and lyophilization and vialing, there are a number of vendors we are in contact with and can also use if required.

We may not be able to obtain sufficient quantities of any of our raw materials or drug candidates if our designated manufacturers do not have the capacity or capability to manufacture our products according to our schedule and specifications. If any of these single source suppliers were to become unable or unwilling to supply us with API or finished product that complies with applicable regulatory requirements, we could incur significant delays in our clinical trials which could have a material adverse effect on our business.

We have established a quality assurance program intended to ensure that our third-party manufacturers and service providers produce materials and provide services, when applicable, in accordance with the FDA’s current Good Manufacturing Practices and other applicable regulations.

For our future products, we intend to continue to establish third-party suppliers to manufacture sufficient quantities of our drug candidates to undertake clinical trials and to manufacture sufficient quantities of any product that is approved for commercial sale. If we are unable to contract for large scale manufacturing with third parties on acceptable terms for our future products or develop manufacturing capabilities internally, our ability to conduct large scale clinical trials and ultimately meet customer demand for commercial products will be adversely affected.

Third-party Manufacturers

Our third-party manufacturers are independent entities, under contract with us, who are subject to their own unique operational and financial risks which are out of our control. If we or any of our third-party manufacturers fail to perform as required, this could impair our ability to deliver our products on a timely basis or cause delays in our clinical trials and applications for regulatory approval. To the extent that these risks materialize and affect their performance obligations to us, our financial results may be adversely affected.

While we believe there are multiple third parties capable of providing most of the materials and services we need in order to manufacture our product candidates, and that supply of materials that cannot be second-sourced can be managed with inventory planning, there is always a risk that we may underestimate demand, and that our manufacturing capacity through third-party manufacturers may not be sufficient.

Access to Supplies and Materials

Our third-party manufacturers need access to certain supplies and products to manufacture our drug candidates. If delivery of material from their suppliers were interrupted for any reason or if they are unable to purchase sufficient quantities of raw materials used to manufacture our drug candidates, they may be unable to supply our drug candidates in development for clinical trials.

Research and Development

Since our inception, we have made substantial investments in research and technology development. During the years ended December 31, 2017 and 2016, we incurred research and development expenses of approximately \$5.3 million, and \$3.8 million, respectively.

Product Liability and Insurance

Once we are able to commence the sale of our products into the market, we will face the risk of product liability claims. Because we are not yet selling our products, we have not experienced any product liability claims to date. Management maintains products and clinical trial liability insurance policies. There can be no assurance that liability claims will not exceed such insurance coverage limits, which could have a materially adverse effect on our business, financial condition or results of operations or that such insurance will continue to be available on commercially reasonable terms, if at all.

Human Resources

Employees

We currently have seven full-time employees. The management team is comprised of Peter Hoang (President and Chief Executive Officer), Dr. Glynn Wilson (Strategy Advisor), Michael J. Loiacono (Chief Financial Officer), Dr. Robert Florkiewicz (Senior Director of Molecular Biology & Virology) and a Director of Administration. Additionally, we employ a Director of Manufacturing and an Investor Relations Manager.

Consultants

We have consulting agreements with a number of leading academic scientists, clinicians and regulatory experts. These individuals serve as key consultants or expert witnesses with respect to the imetelstat program or in legal proceedings. They also serve as important contacts for us throughout the broader scientific and clinical communities. They are distinguished individuals with expertise in numerous fields, including cellular biology, molecular biology, oncology, clinical, manufacturing and regulatory. Dr. Richard Kenney serves as our Acting Medical Director in a consulting capacity.

We retain each consultant according to the terms of a consulting agreement. Under such agreements, we pay them a consulting fee and reimburse them for out-of-pocket expenses incurred in performing their services for us. In addition, some consultants hold options to purchase our common stock, subject to the vesting requirements contained in separate award agreements. Our consultants may be employed by other entities and therefore may have commitments to their employer, or may have other consulting or advisory agreements that may limit their availability to us.

Available Information

Our website is located at www.tapimmune.com. We make available free of charge on our website our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports, as soon as reasonably practicable after we electronically file or furnish such materials to the Securities and Exchange Commission. Our website and the information contained therein or connected thereto are not intended to be incorporated into this Annual Report on Form 10-K.

ITEM 1A. RISK FACTORS

An investment in our common stock involves a high degree of risk. You should carefully consider the risks described below before making an investment decision in our securities. These risk factors are effective as of the date of this Form 10-K and shall be deemed to be modified or superseded to the extent that a statement contained in our future filings modifies or replaces such statement. All of these risks may impair our business operations. The forward-looking statements in this Form 10-K involve risks and uncertainties and actual results may differ materially from the results we discuss in the forward-looking statements. If any of the following risks actually occur, our business, financial condition or results of operations could be materially adversely affected. In that case, the trading price of our stock could decline, and you may lose all or part of your investment.

Risks Related to our Financial Position and Capital Needs

We will need to raise additional capital in the future to continue to operate our business and this capital might not be available on acceptable terms, if at all.

Since we have no sources of revenue to provide incoming cash flows to sustain our future operations, our ability to pursue our planned business activities is dependent upon our successful efforts to raise additional capital. As of December 31, 2017, we had cash of approximately \$5.1 million. We believe that our cash resources can be sufficient to fund our research efforts and operations into the third quarter of 2018. Until we can generate a sufficient amount of product revenue, if ever, we expect to finance future cash needs through public or private equity offerings or debt financings or through a business combination or strategic partnership. Additional capital, if needed, may not be available on satisfactory terms, or at all. Furthermore, if we raise additional funds by issuing equity securities, dilution to our existing stockholders could result. Any equity securities issued also may provide for rights, preferences or privileges senior to those of holders of our common stock. If we raise additional funds by issuing debt securities, these debt securities would have rights, preferences and privileges senior to those of holders of our common stock, and the terms of the debt securities issued could impose significant restrictions on our operations. If we are unable to obtain adequate financing or financing on terms acceptable to us, we may not be able to sustain our future operations and may be required to suspend our research efforts and reduce or cease our operations.

Our auditor has expressed substantial doubt about our ability to continue as a going concern and absent additional financing we may be unable to remain a going concern.

In light of our recurring losses, accumulated deficit and negative cash flow as described in our notes to our audited financial statements, the report of our independent registered public accounting firm on our financial statements for the year ended December 31, 2017 contains an explanatory paragraph raising substantial doubt about our ability to continue as a going concern. Our financial statements do not include any adjustments that may be necessary in the event we are unable to continue as a going concern. We believe our current capital resources are sufficient to support our operations into the third quarter of 2018. Management intends to continue our research efforts and to finance our operations through debt and/or equity financings. Management plans to seek additional debt and/or equity financing through private or public offerings or through a business combination or strategic partnership. There can be no assurance that we will be successful in obtaining additional financing on favorable terms, or at all. These matters raise substantial doubt about our ability to continue as a going concern.

We are a development stage company with a history of operating losses.

We are a clinical-stage immunotherapy company with a history of losses, and we may always operate at a loss. We expect that we will continue to operate at a loss throughout our development stage, and as a result, we may exhaust our financial resources and be unable to complete the development of our products. We anticipate that our ongoing operational costs will increase significantly as we continue conducting our clinical development program. Our deficit will continue to grow during our drug development period. We have no sources of revenue to provide incoming cash flows to sustain our future operations. As outlined above, our ability to pursue our planned business activities depends upon our successful efforts to raise additional financing

We have sustained losses from operations in each fiscal year since our inception, and we expect losses to continue for the indefinite future due to the substantial investment in research and development. As of December 31, 2017, we had an accumulated deficit of approximately \$157 million since inception. We expect to spend substantial additional sums on the continued administration and research and development of licensed and proprietary products and technologies with no certainty that our approach and associated technologies will become commercially viable or profitable as a result of these expenditures. If we fail to raise a significant amount of capital, we may need to significantly curtail operations or cease operations in the near future. If any of our product candidates fails in clinical trials or does not gain regulatory approval, we may never generate revenue. Even if we generate revenue in the future, we may not be able to become profitable or sustain profitability in subsequent periods.

We have not yet sold any products or received regulatory approval to sell our products.

We have no approved products or products pending approval. As a result, we have not derived any revenue from the sales of products and have not yet demonstrated ability to obtain regulatory approval, formulate and manufacture commercial-scale products, or conduct sales and marketing activities necessary for successful product commercialization. Without revenue, we can only finance our company through debt and equity financings.

The recently passed U.S. federal income tax reform could adversely affect

On December 22, 2017, U.S. federal tax legislation, commonly referred to as the Tax Cuts and Jobs Act (TCJA), was signed into law, significantly reforming the U.S. Internal Revenue Code. The TCJA, among other things, includes changes to U.S. federal tax rates, limitation of the deduction for net operating losses to 80% of current year taxable income and elimination of net operating loss carrybacks. We have evaluated the effect of the TCJA on our net operating losses for the quarter and the year ending December 31, 2017. The estimated impact of the TCJA is based on our management's current knowledge and assumptions and recognized impacts could be materially different from current estimates based on our actual results and our further analysis of the new law. The impact of the TCJA on holders of common shares is uncertain and could be adverse. This Annual Report on Form 10-K does not discuss any such tax legislation or the manner in which it might affect holders of our common stock. Investors should consult with their own tax advisors with respect to such legislation and the potential tax consequences of investing in our common stock.

Risks Related to our Business and Intellectual Property

We may be required to make additional cash payments to warrant holders in the event any registration statement we have filed with the SEC to register the shares issuable upon exercise of the warrants ceases to be effective and we are unable to deliver registered shares.

Since we are required to deliver unlegended registered shares of common stock to certain of the warrant holders acquiring warrants in our 2015, 2016 and 2017 financings upon exercise of such outstanding warrants, we have filed registration statements with the SEC to register such shares. The registration statements permit registered shares of common stock to be issued upon the exercise of such warrants. In some cases, we would be required to make additional cash payments to such warrant holders if we fail to maintain the effectiveness of the relevant registration statement for the issuance of such registered shares upon an exercise by the warrant holder. For each trading day that the shares are not timely delivered we would be required to pay an amount to the holder equal to a percentage of the product of (A) the aggregate number of shares not issued to the holder on a timely basis and to which the holder is entitled and (B) the closing sale price of our common stock on the trading day immediately preceding the last possible date on which we could have issued such shares to the holder. Additionally, we could be required to pay the holder a "buy-in" if the holder is required to purchase shares on the open market to cover any warrant shares sold. As such, the amount of additional cash payments we would be required to make could be substantial, as a percentage of our cash, if we are unable to deliver registered shares upon the warrant exercise. Currently, the registration statements we have filed are not useable until such time as appropriate post-effective amendments to the registration statements can be filed by us and ultimately be declared effective by the Securities and Exchange Commission. While we have filed such amendments to our registration statements, there can be no assurance that we will be able to have the post-effective amendments to our registration statements declared effective in a timely manner. During such time that we are not able to provide an effective registration statement and to the extent we receive any notices of exercises related to the warrants with such rights, we would be unable to deliver registered shares. In such event we could be required to make cash payments to an exercising warrant holder. We may not be able to make the required cash payments and the failure to do so could materially harm our financial condition and operations.

We may not be able to develop products successfully or develop them on a timely basis.

Our immunotherapy product candidates are at various stages of research and development. Further development and extensive testing will be required to determine their technical feasibility and commercial viability. We will need to complete significant additional clinical trials demonstrating that our product candidates are safe and effective to the satisfaction of the Food and Drug Administration (“FDA”) and other non-U.S. regulatory authorities. The drug approval process is time-consuming, which involves substantial expenditures of resources, and depends upon a number of factors, including the severity of the illness in question, the availability of alternative treatments, and the risks and benefits demonstrated in the clinical trials. Our success depends on our ability to achieve scientific and technological advances and to translate such advances into licensable, FDA-approvable, commercially-competitive products on a timely basis. Failure can occur at any stage of the process. If such programs are not successful, we may be unable to develop revenue-producing products. As we enter a more extensive clinical program for our product candidates, the data generated in these studies may not be as compelling as the earlier results.

Immunotherapies and vaccines that we may develop are not likely to be commercially available for at least five years. Any delay in obtaining FDA and/or other necessary regulatory approvals in the United States and in countries outside the United States for any investigational new drug and failure to receive such approvals would have an adverse effect on the investigational new drug’s potential commercial success and on our business, prospects, financial condition and results of operations. The time required to obtain approval by the FDA and non-U.S. regulatory authorities is unpredictable but typically takes many years following the commencement of clinical trials and depends upon numerous factors, including the substantial discretion of the regulatory authorities. For example, the FDA or non-U.S. regulatory authorities may disagree with the design or implementation of our clinical trials or study endpoints; or we may be unable to demonstrate that a product candidate’s clinical and other benefits outweigh its safety risks. In addition, the FDA or non-U.S. regulatory authorities may disagree with our interpretation of data from preclinical studies or clinical trials or the data collected from clinical trials of our product candidates may not be sufficient to support the submission of a new drug application (“NDA”) or other submission or to obtain regulatory approval in the United States or elsewhere. The FDA or non-U.S. regulatory authorities may fail to approve the manufacturing processes or facilities of third-party manufacturers with which we contract for clinical and commercial supplies; and the approval policies or regulations of the FDA or non-U.S. regulatory authorities may significantly change in a manner rendering our clinical data insufficient for approval. In addition, approval policies, regulations, or the type and amount of clinical data necessary to gain approval may change during the course of a product candidate’s clinical development and may vary among jurisdictions. The proposed development schedules for our immunotherapy product candidates may be affected by a variety of other factors, including technological difficulties, clinical trial failures, regulatory hurdles, competitive products, intellectual property challenges and/or changes in governmental regulation, many of which will not be within our control.

Any delay in the development, approval, introduction or marketing of our products could result either in such products being marketed at a time when their cost and performance characteristics would not be competitive in the marketplace or in the shortening of their commercial lives. In light of the long-term nature of our projects, the unproven technology involved and the other factors described elsewhere in this section, we might not be able to successfully complete the development or marketing of any new products, and as a result, our business, prospects, financial condition and results of operations could be materially and adversely affected. We may be required to reduce our staff, discontinue certain research or development programs of our future products and cease to operate.

Our commercial success depends upon attaining significant market acceptance of our product candidates, if approved, among physicians, patients, healthcare payors and the medical community.

Even if we obtain regulatory approval for our product candidates, they may not gain market acceptance among physicians, healthcare payors, patients or the medical community. Market acceptance of our product candidates, if we receive approval, depends on a number of factors, including the:

- efficacy and safety of our product candidates as demonstrated in clinical trials and post-marketing experience;
- clinical indications for which our product candidates may be approved;

- acceptance by physicians and patients of our product candidates as safe and effective;
- potential and perceived advantages of our product candidates over alternative treatments;
- safety of our product candidates seen in a broader patient group, including its use outside the approved indications should physicians choose to prescribe for such uses;
- prevalence and severity of any side effects;
- product labeling or product insert requirements of the FDA or other regulatory authorities;
- timing of market introduction of our product candidates as well as competitive products;
- cost in relation to alternative treatments;
- availability of coverage and adequate reimbursement and pricing by third-party payors and government authorities;
- relative convenience and ease of administration; and
- effectiveness of any sales and marketing efforts.

Moreover, if our product candidates are approved but fail to achieve market acceptance among physicians, patients, healthcare payors and the medical community, we may not be able to generate significant revenues, which would compromise our ability to become profitable.

We may not be able to establish or maintain the third-party relationships that are necessary to develop or potentially commercialize some or all of our product candidates.

We expect to depend on collaborators, partners, licensees, clinical research organizations and other third parties to support our discovery efforts, to formulate product candidates, to manufacture our product candidates, and to conduct clinical trials for some or all of our product candidates. We cannot guarantee that we will be able to successfully negotiate agreements for or maintain relationships with collaborators, partners, licensees, clinical investigators, vendors and other third parties on favorable terms, if at all. Our ability to successfully negotiate such agreements will depend on, among other things, potential partners' evaluation of the superiority of our technology over competing technologies and the quality of the preclinical and clinical data that we have generated, and the perceived risks specific to developing our product candidates. If we are unable to obtain or maintain these agreements, we may not be able to clinically develop, formulate, manufacture, obtain regulatory approvals for or commercialize our product candidates.

We may face legal claims; litigation is expensive and we may not be able to afford the costs.

We may face legal claims involving stockholders, consumers, competitors, entities from whom we license technology, entities with whom we collaborate, persons claiming that we are infringing on their intellectual property and others. The biotechnology and pharmaceutical industries have been characterized by extensive litigation regarding patents and other intellectual property rights, and companies have employed intellectual property litigation to gain a competitive advantage. We may initiate or become subject to infringement claims or litigation arising out of patents and pending applications of our competitors, or we may become subject to proceedings initiated by our competitors or other third parties or the United States Patent and Trademark Office ("USPTO") or applicable foreign bodies to reexamine the patentability of our licensed or owned patents. In addition, litigation may be necessary to enforce our issued patents, to protect our trade secrets and know-how, or to determine the enforceability, scope, and validity of the proprietary rights of other.

The costs of litigation or any proceeding relating to our intellectual property or contractual rights could be substantial even if resolved in our favor. Some of our competitors or financial funding sources have far greater resources than we do and may be better able to afford the costs of complex legal procedures. Also, in a law suit for infringement or contractual breaches, even if frivolous, will require considerable time commitments on the part of management, its attorneys and consultants. Defending these types of proceedings or legal actions involve considerable expense and could negatively affect our financial results.

Our research and development programs are subject to uncertainty.

Factors affecting our research and development programs include, but are not limited to:

- competition from companies that are substantially and financially stronger than we are;
- need for acceptance of our immunotherapies;
- our ability to anticipate and adapt to a competitive market and rapid technological developments;
- amount and timing of operating costs and capital expenditures relating to expansion of our business, operations and infrastructure;
- need to rely on multiple levels of outside funding due to the length of drug development cycles and governmental approved protocols associated with the pharmaceutical industry; and
- dependence upon key personnel including key independent consultants and advisors.

Our research and development expenses may not be consistent from time to time. We may be required to accelerate or delay incurring certain expenses depending on the results of our studies and the availability of adequate funding.

Certain of our technologies are in-licensed from third parties, and the protection of those technologies is not entirely within our control.

We have world-wide exclusive licenses on (i) a novel set of Class II HER2/neu+ peptide antigens, (ii) a novel Class I HER2/neu+ antigen, and (iii) a novel set of Class II Folate Receptor Alpha peptide antigens. As a result of these in-licenses, we could lose the right to develop each of the technologies if:

- the owners of the patent rights underlying the technologies that we license do not properly maintain or enforce the patents and intellectual property underlying those properties,
- the Mayo Clinic seeks to terminate our license in contravention of the license agreements,
- we fail to make all payments due and owing under any of the licenses; or
- we fail to obtain on commercially reasonable terms, if at all, in-licenses from the Mayo Clinic or other for other rights that are necessary to develop the technology that we have already in-licensed.

If any of the above occurs, we could lose the right to use the in-licensed intellectual property, which would adversely affect our ability to commercialize our technologies, products or services. The loss of any current or future licenses from Mayo Clinic or the exclusivity rights provided therein could materially harm our financial condition and operating results.

We rely upon patents and licensed technologies to protect our technology. We may be unable to protect our intellectual property rights, and we may be liable for infringing the intellectual property rights of others.

Our ability to compete effectively depends on our ability to maintain the proprietary nature of our technologies, including PolyStart™, and the proprietary technology of others with whom we have entered into collaboration and licensing agreements.

We own or hold licenses to a number of issued patents and U.S. pending patent applications, as well as foreign patents and foreign counterparts. Our success depends in part on our ability to obtain patent protection both in the United States and abroad for our product candidates, as well as the methods for treating patients in the product indications using these product candidates. Such patent protection is costly to obtain and maintain, and sufficient funds might not be available. Our ability to protect our product candidates from unauthorized or infringing use by third parties depends in substantial part on our ability to obtain and maintain valid and enforceable patents. Due to evolving legal standards relating to the patentability, validity and enforceability of patents covering pharmaceutical inventions and the scope of claims made under these patents, our ability to obtain, maintain and enforce patents is uncertain and involves complex legal and factual questions. Even if our product candidates, as well as methods for treating patients for prescribed indications using these product candidates are covered by valid and enforceable patents and have claims with sufficient scope, disclosure and support in the specification, the patents will provide protection only for a limited amount of time. Accordingly, rights under any issued patents may not provide us with sufficient protection for our product candidates or provide sufficient protection to afford us a commercial advantage against competitive products or processes.

In addition, we cannot guarantee that any patents will be issued from any pending or future patent applications owned by or licensed to us. Even if patents have been issued or will be issued, we cannot guarantee that the claims of these patents are or will be valid or enforceable or will provide us with any significant protection against competitive products or otherwise be commercially valuable to us. The laws of some foreign jurisdictions do not protect intellectual property rights to the same extent as in the United States and many companies have encountered significant difficulties in protecting and defending such rights in foreign jurisdictions. Furthermore, different countries have different procedures for obtaining patents, and patents issued in different countries offer different degrees of protection against use of the patented invention by others. If we encounter such difficulties in protecting or are otherwise precluded from effectively protecting our intellectual property rights in foreign jurisdictions, our business prospects could be substantially harmed.

The patent positions of biotechnology and pharmaceutical companies, including our patent positions, involve complex legal and factual questions, and, therefore, validity and enforceability cannot be predicted with certainty. Patents may be challenged, deemed unenforceable, invalidated, or circumvented. Our patents can be challenged by our competitors who can argue that our patents are invalid, unenforceable, lack sufficient written description or enablement, or that the claims of the issued patents should be limited or narrowly construed. Patents also will not protect our product candidates if competitors devise ways of making or using these product candidates without infringing our patents.

We will be able to protect our proprietary rights from unauthorized use by third parties only to the extent that our technologies, methods of treatment, product candidates, and any future products are covered by valid and enforceable patents or are effectively maintained as trade secrets and we have the funds to enforce our rights, if necessary.

The expiration of our owned or licensed patents before completing the research and development of our product candidates and receiving all required approvals in order to sell and distribute the products on a commercial scale can adversely affect our business and results of operations.

We may be unable to adequately prevent disclosure of trade secrets and other proprietary information.

We also rely on trade secrets to protect our proprietary technologies, especially where we do not believe patent protection is appropriate or obtainable. However, trade secrets are difficult to protect. We rely in part on confidentiality agreements with our employees, consultants, outside scientific collaborators, sponsored researchers, and other advisors to protect our trade secrets and other proprietary information. These agreements may not effectively prevent disclosure of confidential information and may not provide an adequate remedy in the event of unauthorized disclosure of confidential information. In addition, others may independently discover our trade secrets and proprietary information. Costly and time-consuming litigation could be necessary to enforce and determine the scope of our proprietary rights, and failure to obtain or maintain trade secret protection could adversely affect our competitive business position.

If we are unable to obtain licenses needed for the development of our product candidates, or if we breach any of the agreements under which we license rights to patents or other intellectual property from third parties, we could lose license rights that are important to our business.

If we are unable to maintain and/or obtain licenses needed for the development of our product candidates in the future, we may have to develop alternatives to avoid infringing on the patents of others, potentially causing increased costs and delays in drug development and introduction or precluding the development, manufacture, or sale of planned products. Some of our licenses provide for limited periods of exclusivity that require minimum license fees and payments and/or may be extended only with the consent of the licensor. We might not meet these minimum license fees in the future or these third parties might not grant extensions on any or all such licenses. This same restriction may be contained in licenses obtained in the future.

Additionally, the patents underlying the licenses might not be valid and enforceable. To the extent any products developed by us are based on licensed technology, royalty payments on the licenses will reduce our gross profit from such product sales and may render the sales of such products uneconomical. In addition, the loss of any current or future licenses or the exclusivity rights provided therein could materially harm our business financial condition and our operations.

We may not obtain or maintain the benefits associated with orphan drug designation, including market exclusivity.

On December 9, 2015, we announced that we received Orphan Drug Designation from the U.S. Food & Drug Administration's Office of Orphan Products Development ("OOPD") for our cancer vaccine TPIV200 in the treatment of ovarian cancer. The TPIV200 ovarian cancer clinical program will now receive benefits including tax credits on clinical research and seven-year market exclusivity upon receiving marketing approval. Even though we were granted orphan drug designation, we may not receive the benefits associated with orphan drug designation. This may result from a failure to maintain orphan drug status, or result from a competing product reaching the market that has an orphan designation for the same disease indication. Under U.S. regulations for orphan drugs, if such a competing product reaches the market before ours does, the competing product could potentially obtain a scope of market exclusivity that limits or precludes our product from being sold in the United States for seven years. Even if we obtain exclusivity, the FDA could subsequently approve a drug for the same condition if the FDA concludes that the later drug is clinically superior in that it is shown to be safer, more effective or makes a major contribution to patient care. A competitor also may receive approval of different products for the same indication for which our orphan product has exclusivity, or obtain approval for the same product but for a different indication for which the orphan product has exclusivity.

In addition, if and when we request orphan drug designation in Europe, the European exclusivity period is ten years but can be reduced to six years if the drug no longer meets the criteria for orphan drug designation or if the drug is sufficiently profitable so that market exclusivity is no longer justified. Orphan drug exclusivity may be lost if the FDA or European Medicines Evaluation Agency ("EMA") determines that the request for designation was materially defective or if the manufacturer is unable to assure sufficient quantity of the drug to meet the needs of patients with the rare disease or condition.

New regulatory pathways for biosimilar competition could reduce the duration of market exclusivity for our products.

Under the federal Patient Protection and Affordable Care Act ("PPACA"), enacted in 2010, there is an abbreviated path in the United States for regulatory approval of products that are demonstrated to be "biosimilar" or "interchangeable" with an FDA-approved biological product. The PPACA provides a regulatory mechanism that allows for FDA approval of biologic drugs that are similar to (but not generic copies of) innovative drugs on the basis of less extensive data than is required by a full BLA. Under this regulation, an application for approval of a biosimilar may be filed four years after approval of the innovator product. However, qualified innovative biological products will receive 12 years of regulatory exclusivity, meaning that the FDA may not approve a biosimilar version until 12 years after the innovative biological product was first approved by the FDA. However, the term of regulatory exclusivity may not remain at 12 years in the United States and could be shortened.

A number of jurisdictions outside of the United States have also established abbreviated pathways for regulatory approval of biological products that are biosimilar to earlier versions of biological products. For example, the European Union has had an established regulatory pathway for biosimilars since 2005.

The increased likelihood of biosimilar competition has increased the risk of loss of innovators' market exclusivity. Due to this risk, and uncertainties regarding patent protection, if our late-stage product candidates or other clinical candidates are approved for marketing, it is not possible to predict the length of market exclusivity for any particular product with certainty based solely on the expiration of the relevant patent(s) or the current forms of regulatory exclusivity. It is also not possible to predict changes in United States regulatory law that might reduce biological product regulatory exclusivity. The loss of market exclusivity for a product would likely materially and negatively affect revenues from product sales of that product and thus our financial results and condition.

We have limited manufacturing experience and have no manufacturing facility. We are dependent on third-party manufacturers for the manufacture of our product candidates as well as on third parties for our supply chain, and if we experience problems with any such third parties, the manufacturing of our product candidates could be delayed.

We do not own or operate facilities for the manufacture of our product candidates. We currently have no short-term plans to build our own clinical or commercial scale manufacturing capabilities. We currently rely on third-party Contract Manufacturing Organizations ("CMOs"). To meet our projected needs for preclinical and clinical supplies to support our activities through regulatory approval and commercial manufacturing, the CMOs with whom we currently work may need to increase the scale of production. We may need to identify additional CMOs for continued production of supply for our product candidates. Although alternative third-party suppliers with the necessary manufacturing and regulatory expertise and facilities exist, it could be expensive and take a significant amount of time to arrange for alternative suppliers. If we are unable to arrange for alternative third-party manufacturing sources, or to do so on commercially reasonable terms or in a timely manner, we may not be able to complete development of our product candidates, or market or distribute our product candidates.

Reliance on third-party manufacturers entails risks to which we would not be subject if we manufactured our product candidates ourselves, including reliance on the third party for regulatory compliance and quality assurance, the possibility of breach of the manufacturing agreement by the third party because of factors beyond our control, including a failure to synthesize and manufacture our product candidates or any drugs we may eventually commercialize in accordance with our specifications, and the possibility of termination or nonrenewal of agreement by the third party, based on its own business priorities, at a time that is costly or damaging to us. In addition, the FDA and other regulatory authorities would require that our product candidates and any products that we may eventually commercialize be manufactured according to Current Good Manufacturing Practice (“cGMP”) and similar foreign standards. Any failure by our third-party manufacturers to comply with cGMP or failure to scale up manufacturing processes, including any failure to deliver sufficient quantities of our product candidates in a timely manner, could lead to a delay in, or failure to obtain, regulatory approval of our product candidates. In addition, such failure could be the basis for the FDA to issue a warning letter, withdraw approvals for such product candidate previously granted to us, or take other regulatory or legal action, including recall or seizure of outside supplies of our product candidates, total or partial suspension of production, suspension of ongoing clinical trials, refusal to approve pending applications or supplemental applications, detention or product, refusal to permit the import or export of products, injunction, or imposing civil and criminal penalties.

Any significant disruption in our supplier relationships could harm our business. Any significant delay in the supply of our product candidates or their respective key materials for an ongoing preclinical study or clinical trial could considerably delay completion of such preclinical study or clinical trial, product testing and potential regulatory approval of our product candidates. If our manufacturers or we are unable to purchase these key materials after regulatory approval has been obtained for one of our product candidates, the commercial launch of such product candidate would be delayed or there would be a shortage in supply, which would impair our ability to generate revenues from the sale of that product candidate.

If we are unable to establish sales and marketing capabilities or enter into agreements with third parties to market and sell our product candidates, we may be unable to generate any revenue.

We do not currently have an organization for the sale, marketing and distribution of products and the cost of establishing and maintaining such an organization may exceed the cost-effectiveness of doing so. In order to market any products approved by the FDA or comparable foreign regulatory authorities, we must build our sales, marketing, managerial and other non-technical capabilities or make arrangements with third parties to perform these services. If we are unable to establish adequate sales, marketing and distribution capabilities, whether independently or with third parties, we may not be able to generate product revenue and may not become profitable. We will be competing with many companies that currently have extensive and well-funded sales and marketing operations. Without an internal commercial organization or the support of a third party to perform sales and marketing functions, we may be unable to compete successfully against these more established companies.

If we are unable to establish or manage strategic collaborations in the future, our revenue and drug development may be limited.

Our strategy includes eventual substantial reliance upon strategic collaborations for marketing and commercialization of our cancer vaccines, and we may rely even more on strategic collaborations for research, development, marketing and commercialization of our other immunotherapies. If we are unsuccessful in securing such strategic collaborations, we may be unable to commercialize our products as we have not yet licensed, marketed or sold any of our immunotherapies or entered into successful collaborations for these services in order to ultimately commercialize our immunotherapies. Establishing strategic collaborations is difficult and time-consuming. Our discussions with potential collaborators may not lead to the establishment of collaborations on favorable terms, if at all. Potential collaborators may reject collaborations based upon their assessment of our financial, clinical, regulatory or intellectual property position. If we successfully establish new collaborations, these relationships may never result in the successful development or commercialization of our immunotherapies or the generation of sales revenue. To the extent that we enter into co-promotion or other collaborative arrangements, our product revenues are likely to be lower than if we directly marketed and sold any products that we may develop.

Management of our relationships with our collaborators will require:

- significant time and effort from our management team;
- coordination of our research and development programs with the research and development priorities of our collaborators; and
- effective allocation of our resources to multiple projects.

If we continue to enter into research and development collaborations at the early phases of drug development, our success will in part depend on the performance of our corporate collaborators. We will not directly control the amount or timing of resources devoted by our corporate collaborators to activities related to our immunotherapies. Our corporate collaborators may not commit sufficient resources to our research and development programs or the commercialization, marketing or distribution of our immunotherapies. If any corporate collaborator fails to commit sufficient resources, our preclinical or clinical development programs related to this collaboration could be delayed or terminated. Also, our collaborators may pursue existing or other development-stage products or alternative technologies in preference to those being developed in collaboration with us. Finally, if we fail to make required milestone or royalty payments to our collaborators or to observe other obligations in our agreements with them, our collaborators may have the right to terminate those agreements.

We need to attract and retain highly skilled personnel; we may be unable to effectively manage growth with our limited resources.

As of December 31, 2017, we had seven full-time employees and a number of management and scientific consultants and advisors. Our ability to attract and retain highly skilled personnel is critical to our operations and expansion. We face competition for these types of personnel from other biotechnology companies and more established organizations, many of which have significantly larger operations and greater financial, technical, human and other resources than we have. We may not be successful in attracting and retaining qualified personnel on a timely basis, on competitive terms, or at all. If we are not successful in attracting and retaining these personnel, or integrating them into our operations, our business, prospects, financial condition and results of operations will be materially adversely affected. In such circumstances we may be unable to conduct certain research and development programs, unable to adequately manage our clinical trials and other products, and unable to adequately address our management needs.

We depend upon our senior management and key consultants and their loss or unavailability could put us at a competitive disadvantage.

We depend upon the efforts and abilities of our Chief Executive Officer, Peter Hoang, our Acting Chief Medical Officer, Dr. Richard Kenney and our Senior Director of Molecular Biology & Virology, Dr. Robert Florkiewicz, as well as the services of several key consultants. The loss or unavailability of the services of either of these individuals, and our inability to find suitable replacements, for any significant period of time could have a material adverse effect on our business, prospects, financial condition and results of operations.

Our business and operations would suffer in the event of cybersecurity/information systems risk.

Despite the implementation of security measures, our internal computer systems, and those of our manufacturers and other third parties on which we rely, are vulnerable to damage from computer viruses, unauthorized access, natural disasters, fire, terrorism, war and telecommunication and electrical failures. In addition, our systems safeguard important confidential personal data regarding our subjects. If a disruption event were to occur and cause interruptions in our operations, it could result in a material disruption of our drug development programs. For example, the loss of clinical trial data from completed, ongoing or planned clinical trials could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. To the extent that any disruption or security breach results in a loss of or damage to our data or applications, or inappropriate disclosure of confidential or proprietary information, we could incur liability and the further development of our product candidates could be delayed.

Risks Related to our Industry

The biotechnology and immunotherapy industries are characterized by rapid technological developments and a high degree of competition. We may be unable to compete with more substantial enterprises.

The biotechnology and biopharmaceutical industries are characterized by rapid technological developments and a high degree of competition. As a result, our actual or proposed immunotherapies could become obsolete before we recoup any portion of our related research and development and commercialization expenses. Competition in the biopharmaceutical industry is based significantly on scientific and technological factors. These factors include the availability of patent and other protection for technology and products, the ability to commercialize technological developments and the ability to obtain governmental approval for testing, manufacturing and marketing. We compete with specialized biopharmaceutical firms in the United States, Europe and elsewhere, as well as a growing number of large pharmaceutical companies that are applying biotechnology to their operations. Many biopharmaceutical companies have focused their development efforts in the human therapeutics area, including cancer. Many major pharmaceutical companies have developed or acquired internal biotechnology capabilities or made commercial arrangements with other biopharmaceutical companies. These companies, as well as academic institutions and governmental agencies and private research organizations, also compete with us in recruiting and retaining highly qualified scientific personnel and consultants. Our ability to compete successfully with other companies in the pharmaceutical field will also depend to a considerable degree on the continuing availability of capital to us.

We are aware of certain investigational new drugs under development or approved products by competitors that are used for the prevention, diagnosis, or treatment of certain diseases we have targeted for drug development. Various companies are developing biopharmaceutical products that have the potential to directly compete with our immunotherapies even though their approach may be different. The biotechnology and biopharmaceutical industries are highly competitive, and this competition comes from both biotechnology firms and from major pharmaceutical companies. Many of these companies have substantially greater financial, marketing, and human resources than we do. We also experience competition in the development of our immunotherapies from universities, other research institutions and others in acquiring technology from such universities and institutions.

In addition, certain of our immunotherapies may be subject to competition from investigational new drugs and/or products developed using other technologies, some of which have completed numerous clinical trials.

We are subject to numerous risks inherent in conducting clinical trials.

We outsource some of the management of our clinical trials to third parties. Agreements with clinical investigators and medical institutions for clinical testing and with other third parties for data management services, place substantial responsibilities on these parties that, if unmet, could result in delays in, or termination of, our clinical trials. If any of our clinical trial sites fail to comply with FDA-approved good clinical practices, we may be unable to use the data gathered at those sites. If these clinical investigators, medical institutions or other third parties do not carry out their contractual duties or obligations or fail to meet expected deadlines, or if the quality or accuracy of the clinical data they obtain is compromised due to their failure to adhere to our clinical protocols or for other reasons, our clinical trials may be extended, delayed or terminated, and we may be unable to obtain regulatory approval for, or successfully commercialize, agents. We cannot be certain that we will successfully recruit enough patients to complete our clinical trials nor that we will reach our primary endpoints. Delays in recruitment, lack of clinical benefit or unacceptable side effects would delay our Phase II clinical trials.

We, or our regulators, may suspend or terminate our clinical trials for a variety of reasons. We may voluntarily suspend or terminate our clinical trials at any time if we believe they present an unacceptable risk to the patients enrolled in our clinical trials or do not demonstrate clinical benefit. In addition, regulatory agencies may order the temporary or permanent discontinuation of our clinical trials at any time if they believe that the clinical trials are not being conducted in accordance with applicable regulatory requirements or that they present an unacceptable safety risk to the patients enrolled in our clinical trials.

Our clinical trial operations are subject to regulatory inspections at any time. If regulatory inspectors conclude that we or our clinical trial sites are not in compliance with applicable regulatory requirements for conducting clinical trials, we may receive reports of observations or warning letters detailing deficiencies, and we will be required to implement corrective actions. If regulatory agencies deem our responses to be inadequate, or are dissatisfied with the corrective actions we or our clinical trial sites have implemented, our clinical trials may be temporarily or permanently discontinued, and we may be fined, we or our investigators may be precluded from conducting any ongoing or any future clinical trials, the government may refuse to approve our marketing applications or allow us to manufacture or market our products, and we may be criminally prosecuted.

The lengthy approval process, as well as the unpredictability of future clinical trial results, may result in our failing to obtain regulatory approval for our product candidates, which would materially harm our business, results of operations and prospects.

The successful development of immunotherapies is highly uncertain.

Successful development of biopharmaceuticals is highly uncertain and depends on numerous factors, many of which are beyond our control. Immunotherapies that appear promising in the early phases of development may fail to reach the market for several reasons including:

- preclinical study results that may show the immunotherapy to be less effective than desired (e.g., the study failed to meet its primary objectives) or to have harmful or problematic side effects;
- clinical study results that may show the immunotherapy to be less effective than expected (e.g., the study failed to meet its primary endpoint) or to have unacceptable side effects;
- failure to receive the necessary regulatory approvals or a delay in receiving such approvals. Among other things, such delays may be caused by slow enrollment in clinical studies, length of time to achieve study endpoints, additional time requirements for data analysis, or Biologics License Application (“BLA”) preparation, discussions with the FDA, an FDA request for additional preclinical or clinical data, or unexpected safety or manufacturing issues;
- manufacturing costs, formulation issues, pricing or reimbursement issues, or other factors that make the immunotherapy uneconomical; and
- the proprietary rights of others and their competing products and technologies that may prevent the immunotherapy from being commercialized.

Success in preclinical and early clinical studies does not ensure that large-scale clinical studies will be successful. Clinical results are frequently susceptible to varying interpretations that may delay, limit or prevent regulatory approvals. The length of time necessary to complete clinical studies and to submit an application for marketing approval for a final decision by a regulatory authority varies significantly from one immunotherapy to the next, and may be difficult to predict.

Even if we are successful in getting market approval, commercial success of any of our product candidates will also depend in large part on the availability of coverage and adequate reimbursement from third-party payors, including government payors such as the Medicare and Medicaid programs and managed care organizations, which may be affected by existing and future health care reform measures designed to reduce the cost of health care. Third-party payors could require us to conduct additional studies, including post-marketing studies related to the cost effectiveness of a product, to qualify for reimbursement, which could be costly and divert our resources. If government and other health care payors were not to provide adequate coverage and reimbursement levels for one any of our products once approved, market acceptance and commercial success would be reduced.

In addition, if one of our products is approved for marketing, we will be subject to significant regulatory obligations regarding the submission of safety and other post-marketing information and reports and registration, and will need to continue to comply (or ensure that our third-party providers) comply with Good Manufacturing Practices (“GMPs”) and Good Clinical Practices (“GCPs”), for any clinical trials that we conduct post-approval. In addition, there is always the risk that we or a regulatory authority might identify previously unknown problems with a product post-approval, such as adverse events of unanticipated severity or frequency. Compliance with these requirements is costly, and any failure to comply or other issues with our product candidates’ post-market approval could have a material adverse effect on our business, financial condition and results of operations.

We must comply with significant government regulations.

The research and development, manufacture and marketing of human therapeutic and diagnostic products are subject to regulation, primarily by the FDA in the United States and by comparable authorities in other countries. These national agencies and other federal, state, local and foreign entities regulate, among other things, research and development activities (including testing in animals and in humans) and the testing, manufacturing, handling, labeling, storage, record keeping, approval, advertising and promotion of the products that we are developing. If we obtain approval for any of our product candidates, our operations will be directly or indirectly through our customers, subject to various federal and state fraud and abuse laws, including, without limitation, the federal Anti-Kickback Statute and the federal False Claims Act, and privacy laws. Noncompliance with applicable laws and requirements can result in various adverse consequences, including delay in approving or refusal to approve product licenses or other applications, suspension or termination of clinical investigations, revocation of approvals previously granted, fines, criminal prosecution, civil and criminal penalties, recall or seizure of products, exclusion from having our products reimbursed by federal health care programs, the curtailment or restructuring of our operations, injunctions against shipping products and total or partial suspension of production and/or refusal to allow a company to enter into governmental supply contracts.

The process of obtaining requisite FDA approval has historically been costly and time-consuming. Current FDA requirements for a new human biological product to be marketed in the United States include: (1) the successful conclusion of preclinical laboratory and animal tests, if appropriate, to gain preliminary information on the product's safety; (2) filing with the FDA of an IND to conduct human clinical trials for drugs or biologics; (3) the successful completion of adequate and well-controlled human clinical trials to establish the safety and efficacy of the investigational new drug for its recommended use; and (4) filing by a company and acceptance and approval by the FDA of a Biologic License Application, or BLA, for a biological investigational new drug, to allow commercial distribution of a biologic product. The FDA also requires that any drug or formulation to be tested in humans be manufactured in accordance with its Good Manufacturing Practices, or GMP, regulations. This has been extended to include any drug that will be tested for safety in animals in support of human testing. The GMPs set certain minimum requirements for procedures, record-keeping and the physical characteristics of the laboratories used in the production of these drugs. A delay in one or more of the procedural steps outlined above could be harmful to us in terms of getting our immunotherapies through clinical testing and to market.

Litigation regarding patents, patent applications and other proprietary rights may be expensive and time consuming. If we are involved in such litigation, it could cause delays in bringing product candidates to market and harm our ability to operate.

Our success depends in part on our ability to operate without infringing the proprietary rights of third parties. The pharmaceutical industry is characterized by extensive litigation regarding patents and other intellectual property rights. Other parties may obtain patents in the future and allege that the products or use of our technologies infringe these patent claims or that we are employing their proprietary technology without authorization.

In addition, third parties may challenge or infringe upon our existing or future patents. Proceedings involving our patents or patent applications or those of others could result in adverse decisions regarding:

- the patentability of our inventions relating to our product candidates; and/or
- the enforceability, validity or scope of protection offered by our patents relating to our product candidates.

Even if we are successful in these proceedings, we may incur substantial costs and divert management time and attention in pursuing these proceedings, which could have a material adverse effect on us. If we are unable to avoid infringing the patent rights of others, we may be required to seek a license, defend an infringement action or challenge the validity of the patents in court. Patent litigation is costly and time consuming. We may not have sufficient resources to bring these actions to a successful conclusion. In addition, if we do not obtain a license, develop or obtain non-infringing technology, fail to defend an infringement action successfully or have infringed patents declared invalid, we may:

- incur substantial monetary damages;
- encounter significant delays in bringing our product candidates to market; and/or
- be precluded from participating in the manufacture, use or sale of our product candidates or methods of treatment requiring licenses.

We may incur substantial liabilities from any product liability claims if our insurance coverage for those claims is inadequate.

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

- decreased demand for our immunotherapies;
- damage to our reputation;
- withdrawal of clinical trial participants;
- costs of related litigation;
- substantial monetary awards to patients or other claimants;
- loss of future revenues;
- the inability to commercialize immunotherapies; and
- increased difficulty in raising required additional funds in the private and public capital markets.

We carry products and clinical trial liability insurance. There can be no assurance that future product liability claims will not exceed such insurance coverage limits, which could have a materially adverse effect on our business, financial condition or results of operations, we may not be able to maintain insurance coverage at a reasonable cost and we may not be able to obtain insurance coverage that will be adequate to satisfy any liability that may arise.

Changes in laws and regulations affecting the healthcare industry could adversely affect our business.

As described above, the PPACA and potential regulations thereunder easing the entry of competing follow-on biologics into the marketplace, other new legislation or implementation of existing statutory provisions on importation of lower-cost competing drugs from other jurisdictions, and legislation on comparative effectiveness research are examples of previously enacted and possible future changes in laws that could adversely affect our business.

The current U.S. administration and Congress could carry out significant changes in legislation, regulation, and government policy (including with respect to the possible repeal of all or portions of the PPACA, possible changes in the existing treaty and trade relationships with other countries, and tax reform), as evidenced by statements and recent actions of the current president. While it is not possible to predict whether and when any such changes will occur, changes in the laws, regulations, and policies governing the development and approval of our product candidates and the commercialization, importation, and reimbursement of our product candidates could adversely affect our business.

Risks Related to our Securities

The price of our common stock may be volatile.

The trading price of our common stock may fluctuate substantially. The price of our common stock that will prevail in the market may be higher or lower than the price at which our shares of common stock, depending on many factors, some of which are beyond our control and may not be related to our operating performance. These fluctuations could cause you to lose part or all of your investment in our common stock. Those factors that could cause fluctuations include, but not limited to, the following:

- price and volume of fluctuations in the overall stock market from time to time;
- fluctuations in stock market prices and trading volumes of similar companies;
- actual or anticipated changes in our net loss or fluctuations in our operating results or in the expectations of securities analysts;
- results of our preclinical studies and clinical trials or delays in anticipated timing;
- the issuance of new equity securities pursuant to a future offering, including issuances of preferred stock;
- announcements of new collaboration agreements with strategic partners or developments by our existing collaboration partners;

- announcements of acquisitions, mergers or business combinations;
- announcements of technological innovations, new commercial products, failures of products, or progress toward commercialization by our competitors or peers;
- general economic conditions and trends;
- positive and negative events relating to healthcare and the overall pharmaceutical and biotechnology sectors;
- major catastrophic events;
- sales of large blocks of our stock;
- departures of key personnel;
- changes in the regulatory status of our immunotherapies, including results of our clinical trials;
- events affecting Mayo Clinic, Mayo Foundation for Medical Education and Research or any future collaborators;
- announcements of new products or technologies, commercial relationships or other events by us or our competitors;
- regulatory developments in the United States and other countries;
- failure of our common stock to maintain listing requirements on the Nasdaq Capital Market;
- changes in accounting principles; and
- discussion of us or our stock price by the financial and scientific press and in online investor communities.

In the past, following periods of volatility in the market price of a company's securities, securities class action litigation has often been brought against that company. Due to the potential volatility of our stock price, we may therefore be the target of securities litigation in the future. Securities litigation could result in substantial costs and divert management's attention and resources from our business.

A limited public trading market may cause volatility in the price of our common stock.

The listing of our common stock on the Nasdaq Capital Market does not assure that a meaningful, consistent and liquid trading market currently exists or will exist in the future. In recent years, the stock market has experienced extreme price and volume fluctuations that have particularly affected the market prices of many smaller companies like us. Our common stock is thus subject to this volatility. Sales of substantial amounts of common stock, or the perception that such sales might occur, could adversely affect prevailing market prices of our common stock and our stock price may decline substantially in a short time and our stockholders could suffer losses or be unable to liquidate their holdings. Our stock is thinly traded due to the limited number of shares available for trading thus causing large swings in price. There is no established trading market for our warrants.

The market prices for our common stock may be adversely impacted by future events.

Market prices for our common stock will be influenced by a number of factors, including:

- the issuance of new equity securities pursuant to a future offering, including issuances of preferred stock;
- changes in interest rates;
- competitive developments, including announcements by competitors of new products or services or significant contracts, acquisitions, strategic partnerships, joint ventures or capital commitments;
- variations in quarterly operating results;
- change in financial estimates by securities analysts;
- the depth and liquidity of the market for our common stock and warrants;
- investor perceptions of our company and the pharmaceutical and biotech industries generally; and
- general economic and other national conditions.

If we fail to remain current with our listing requirements, we could be removed from the Nasdaq Capital Market which would limit the ability of broker-dealers to sell our securities and the ability of stockholders to sell their securities in the secondary market.

Companies listed for trading on the Nasdaq Capital Market must be reporting issuers under Section 12 of the Securities Exchange Act, as amended. If we fail to file such reports in a timely manner, or if we fail to meet any other listing requirements, the shares of our common stock would eventually cease to be listed on the Nasdaq Capital Market, and the market liquidity for our securities could be severely adversely affected by limiting the ability of broker-dealers to sell our securities and the ability of stockholders to sell their securities in the secondary market.

Sales of additional equity securities may adversely affect the market price of our common stock and your rights may be reduced.

We expect to continue to incur drug development and sale, general and administrative costs, and to satisfy our funding requirements, we will need to sell additional equity securities, which may be subject to registration rights and warrants with anti-dilutive protective provisions. The sale or the proposed sale of substantial amounts of our common stock or other equity securities in the public markets may adversely affect the market price of our common stock and our stock price may decline substantially. Our stockholders may experience substantial dilution and a reduction in the price that they are able to obtain upon sale of their shares. Also, new equity securities issued may have greater rights, preferences or privileges than our existing common stock.

Because we have a significant number of additional authorized shares of common stock available for issuance and outstanding warrants to purchase our common stock, our stockholders may experience dilution in the future and it may adversely affect the market price of our securities.

We are currently authorized to issue 41.7 million shares of our common stock. As of December 31, 2017, we had 10.6 million shares of our common stock issued and outstanding, excluding shares issuable upon exercise of our outstanding warrants, options and shares of common stock earned but not yet issued under Omnibus Stock Option Plan. Those outstanding shares represent a minority of our authorized shares, meaning that the ownership position of the current stockholders could be diluted significantly were we to issue a large number of additional shares. For example, as of December 31, 2017, we had outstanding warrants and options to purchase an aggregate of approximately 7.0 million shares of our common stock with exercise prices ranging between \$1.20 and \$204.00 per share that will result in dilution if and when exercised.

The accounting treatment for certain of our warrants is complex and subject to judgments concerning the valuation of embedded derivative rights within the applicable securities. Fluctuations in the valuation of these rights could cause us to take charges to our statement of operations and make our financial results unpredictable.

Certain of our outstanding warrants contain or contained prior to being amended, or may be deemed to contain from time to time, embedded derivative rights in accordance with U.S. Generally Accepted Accounting Principles, or GAAP. There is a risk that questions could arise from investors or regulatory authorities concerning the appropriate accounting treatment of these instruments, which could require us to restate previous financial statements, which in turn could adversely affect our reputation, as well as our results of operations. These derivative rights, or similar rights in securities we may issue in the future, need to be, or may need to be, separately valued as of the end of each accounting period in accordance with GAAP. We record these embedded derivatives as liabilities at issuance, valued using the Black Scholes Option Pricing Model and are subject to revaluation at each reporting date. Any change in fair value between reporting periods is reported on our statement of operations. At December 31, 2017, the fair value of the derivative liability—warrants was \$9,000. Changes in the valuations of these rights, the valuation methodology or the assumptions on which the valuations are based could cause us to take charges to our earnings, which would adversely impact our results of operations. Moreover, the methodologies, assumptions and related interpretations of accounting or regulatory authorities associated with these embedded derivatives are complex and in some cases uncertain, which could cause our accounting for these derivatives, and as a result, our financial results, to fluctuate.

We do not intend to pay cash dividends.

We have not declared or paid any cash dividends on our common stock, and we do not anticipate declaring or paying cash dividends for the foreseeable future. Any future determination as to the payment of cash dividends on our common stock will be at our board of directors' discretion and depends on our financial condition, operating results, capital requirements and other factors that our board of directors considers to be relevant.

Nevada law has anti-takeover provisions that could discourage, delay or prevent a change in control, which may cause our stock price to decline.

Nevada law contains provisions which could make it more difficult for a third party to acquire us, even if closing such a transaction would be beneficial to our stockholders. These provisions may discourage certain types of coercive takeover practices and inadequate takeover bids and encourage persons seeking to acquire control of our company to first negotiate with our board. These provisions may delay or prevent someone from acquiring or merging with us, which may cause the market price of our common stock to decline.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

We do not own any real estate or other properties. We lease office space at 5 West Forsyth Street, Suite 200, Jacksonville, Florida 32202, for our principal business office on a five-year agreement due to expire on June 30, 2022. The rent is approximately \$8,600 per month. We also rent a single office at 2815 Eastlake Avenue East in Seattle, Washington. The monthly rent is approximately \$1,100. Additionally, we rent an office at the Florida Atlantic Research and Development Authority at 3651 FAU Blvd, Boca Raton, Florida on a month by month agreement. The monthly rent for the Boca Raton space is \$750 per month. Lastly, we rent a 100 square-foot office in the Innovation Bio Business Center at Mayo Clinic Jacksonville at 4500 San Pablo Road, Jacksonville, Florida 32224. We are currently on a month by month term and the monthly rent is \$275.

ITEM 3. LEGAL PROCEEDINGS

We are not aware of any legal proceedings contemplated by any government authority or any other party involving the Company. As of the date of this annual report, no director, officer or affiliate is (i) a party averse to us in any legal proceeding, or (ii) has an adverse interest to us in any legal proceeding.

ITEM 4. MINE SAFETY DISCLOSURE

Not Applicable

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 for trading on the Nasdaq Capital Market under the symbol "TPIV". The following table sets forth, for the periods indicated, the high and low sales prices for the common stock since January 1, 2016, as reported on Nasdaq.com.

	<u>High</u>	<u>Low</u>
Fiscal Year 2017		
Fourth Quarter	\$ 4.41	\$ 2.60
Third Quarter	\$ 3.84	\$ 2.68
Second Quarter	\$ 4.70	\$ 3.08
First Quarter	\$ 5.35	\$ 3.70
Fiscal Year 2016		
Fourth Quarter	\$ 6.69	\$ 3.32
Third Quarter	\$ 7.15	\$ 4.80
Second Quarter	\$ 9.82	\$ 5.52
First Quarter	\$ 8.34	\$ 5.04

As of March 16, 2018, we had 515 stockholders of record whom are holding shares. The price of our common stock on March 16, 2018 was \$3.65 per share.

Dividend Policy

No dividends have been declared or paid on our common stock. We have incurred recurring losses and do not currently intend to pay any cash dividends in the foreseeable future.

Recent Sales of Unregistered Securities

We recorded the issuances of the following securities during the fourth quarter of 2017 to the named individual pursuant to exemptions under the Securities Act of 1933, including Section 4(2):

During the fourth quarter of 2017, 76,667 shares of common stock were issued pursuant to third parties consisting of (i) 50,000 shares to Caro Capital for services pursuant to a vendor agreement; (ii) 16,667 shares to Collision Capital for services pursuant to a vendor agreement; and (iii) 10,000 shares to a shareholder, pursuant to a restricted stock agreement.

ITEM 6. SELECTED FINANCIAL DATA

We are a smaller reporting company as defined by Rule 12b-2 of the Exchange Act and are not required to provide the information required under this item.

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

The following discussion of our financial condition, changes in financial condition, plan of operations and results of operations should be read in conjunction with (i) our audited consolidated financial statements as at December 31, 2017 and December 31, 2016 and (ii) the section entitled “Business”, included in this annual report. The discussion contains forward-looking statements that involve risks, uncertainties and assumptions. Our actual results may differ materially from those anticipated in these forward-looking statements as a result of many factors.

Our Cancer Vaccines

We are a clinical-stage immuno-oncology company specializing in the development of innovative peptide and gene-based immunotherapeutics and vaccines for the treatment of cancer & metastatic disease. We are also developing a proprietary technology to improve the ability of the cellular immune system to recognize and destroy diseased cells. This DNA expression technology named PolyStart™ is in preclinical development.

To enhance shareholder value and taking into account development timelines, we plan to focus on advancing our clinical programs including our Folate Receptor Alpha program for breast and ovarian cancer and our HER2/neu+ peptide antigen program into Phase II clinical trials. In parallel, we plan to complete the preclinical development of our PolyStart™ technology as an integral component of our prime-and-boost vaccine methodology.

The Immunotherapy Industry for Cancer

Immuno-oncology has become the most rapidly growing sector in the pharmaceutical and biotech industry. The approval and success of checkpoint inhibitors Yervoy and Opdivo (Bristol Myers Squibb) and Keytruda (Merck & Co.) together with the development of CAR T-cell therapies (Juno Therapeutics, (formerly) Kite Pharma) has provided much momentum in this sector. In addition, new evidence points to the increasing use of combination immunotherapies for the treatment of cancer. This has provided greater opportunities for the successful development of T-cell vaccines in combination with other approaches.

Products and Technology in Development-Clinical

Folate Receptor Alpha is expressed in over 80% of triple-negative breast cancers and in addition, over 90% of ovarian cancers, for which the only treatment options are surgery, radiation therapy and chemotherapy, leaving a very important and urgent clinical need for a new therapeutic. Time to recurrence is relatively short for these types of cancer and survival prognosis is extremely poor after recurrence. In the United States alone, there are approximately 30,000 ovarian cancer patients and 40,000 triple-negative breast cancer patients newly diagnosed every year.

TPIV200

Phase I Human Clinical Trials – Folate Alpha Breast and Ovarian Cancer – Mayo Clinic

A 21-patient Phase I clinical trial using TPIV200 was completed in 2015. The vaccine is well tolerated and safe and 20 out of 21 evaluable patients showed positive immune responses, which provided a strong rationale for progressing to Phase II trials. Good Manufacturing Practice (“GMP”) for Phase II trials resulted in a commercially viable formulation. On July 27, 2015, we exercised our option agreement with Mayo Clinic with the signing of a worldwide exclusive license agreement to commercialize the proprietary Folate Receptor Alpha Vaccine technology for all cancer indications. As part of this Agreement, the investigational new drug application (“IND”) for Folate Receptor Alpha (“TPIV200”) was transferred from Mayo Clinic to us for amendment to support our Phase II Clinical trials on our lead product.

On March 15, 2018, we announced the publication of clinical data from a Phase I trial of TPIV200, our multi-epitope T-cell vaccine targeting Folate Receptor Alpha (“FRa”) in patients with ovarian and breast cancer. The results show that TPIV200 vaccination was well tolerated by all patients and over 90% developed robust and durable antigen-specific immune responses against FRa without regard for HLA type, which aligns with the intended mechanism of action of the vaccine.

On September 15, 2015, we announced that our collaborators at the Mayo Foundation had been awarded a grant of \$13.3 million from the U.S. Department of Defense. This grant, commencing September 15, 2015, will cover the costs for a 280-patient Phase II Clinical Trial of Folate Receptor Alpha Vaccine in patients with triple-negative breast cancer. We will work closely with Mayo Foundation on this clinical trial by providing clinical and manufacturing expertise as well as providing GMP vaccine formulations. These vaccine formulations are being developed for multiple Phase II clinical programs in triple-negative breast and ovarian cancer in combination with other immunotherapeutics. This Phase II study of TPIV200 in the treatment of triple-negative breast cancer began enrolling patients in late 2017.

On December 9, 2015, we announced that we received Orphan Drug Designation from the U.S. Food & Drug Administration's Office of Orphan Products Development ("OOPD") for our cancer vaccine TPIV200 in the treatment of ovarian cancer. The TPIV200 ovarian cancer clinical program will now receive benefits including tax credits on clinical research and seven-year market exclusivity upon receiving marketing approval. TPIV200 is a multi-epitope peptide vaccine that targets Folate Receptor Alpha which is overexpressed in multiple cancers including over 90% of ovarian cancer cells.

On February 3, 2016, we announced that the U.S. FDA designated the investigation of multiple-epitope Folate Receptor Alpha peptide vaccine (TPIV200) with GM-CSF adjuvant for maintenance therapy in subjects with platinum-sensitive advanced ovarian cancer who achieved stable disease or partial response following completion of standard-of-care chemotherapy, as a Fast Track Development Program. We began enrolling a Phase II study in this indication in 2017.

We have opened multiple clinical sites and have completed enrollment of patients in a Phase II trial of our Folate Receptor Alpha cancer vaccine, TPIV200, in the treatment of triple-negative breast cancer, one of the most difficult-to-treat cancers representing a clear unmet medical need. The open-label, 80-patient clinical trial is designed to evaluate dosing regimens, efficacy, and immune responses in women with triple-negative breast cancer. Key data from the trial is expected to be included in a future New Drug Application submission to the FDA for marketing clearance. This trial is sponsored and conducted by TapImmune.

On April 21, 2016, we announced our participation in an ovarian cancer study sponsored by Memorial Sloan Kettering Cancer Center in New York City in collaboration with AstraZeneca Pharmaceuticals in ovarian cancer patients who are not responsive to platinum, a commonly used chemotherapy for ovarian cancer. This study, a Phase II study of TPIV200 is currently enrolling ovarian cancer patients and is designed to look at the effects of combination therapy with AstraZeneca's checkpoint inhibitor durvalumab. The study will enroll 40 patients and is open-label. Because they are unresponsive to platinum, these patients have no real options left. If the combination therapy proves effective, we believe it would address a critical unmet need. TPIV200 has received Orphan Drug designation for use in the treatment of ovarian cancer. Although we have no business relationship with AstraZeneca, we are paying for one-half of the costs of the clinical study in addition to providing our TPIV200 for the study.

A Company-sponsored Phase II study in platinum-sensitive ovarian cancer patients was initiated in 2017. This study is designed to evaluate TPIV200 with GM-CSF in a randomized, placebo-controlled fashion during the first maintenance period after primary surgery and chemotherapy. Patients at this stage of their treatment have the highest potential for an immunotherapeutic effect and no other approved treatment options. The study will enroll up to 120 patients over the next year and a half, with an interim analysis planned in the first quarter of 2019.

TPIV100/110

Phase I Human Clinical Trials – HER2/neu+ Breast Cancer – Mayo Clinic

A Phase I study using TPIV100 (the four-peptide product) was completed in 2015. Final safety analysis on all the patients treated is complete and the product was shown to be safe. In addition, 19 out of 20 evaluable patients showed robust T-cell immune responses to the antigens in the vaccine composition, providing a solid case for advancement to Phase II in 2017. An additional secondary endpoint incorporated into this Phase I Trial was a two-year follow on recording time to disease recurrence in the participating breast cancer patients. A second trial is being started in 2018 that uses a novel vaccine strategy in patients with DCIS to eliminate disease and protect from recurrence.

For Phase I(b)/II studies, we plan to add a Class I peptide, licensed from the Mayo Clinic (April 16, 2012), to the four Class II peptides, producing TPIV110 (the five-peptide product). Management believes that the combination of Class I and Class II HER2/neu+ antigens, gives us the leading HER2/neu+ vaccine platform. We plan to amend the IND to incorporate the fifth peptide in the Phase I(b)/II study. Discussions with the FDA have resulted in a pre-clinical development project that should allow us to file the amended IND in the first half of 2018.

Products and Technology-Preclinical

PolyStart™

We converted the previously filed U.S. Provisional Patent Application on PolyStart™ into a full Patent Application, and in February 2016 we received a Notice of Allowance from the U.S. Patent and Trademark Office (“USPTO”) for a patent application entitled, “A chimeric nucleic acid molecule with non-AUG initiation sequences.” The term of this patent extends to March 17, 2034. Additional patent filings are in progress. We plan to develop PolyStart™ as both a stand-alone therapy and as a ‘boost strategy’ to be used synergistically with our peptide-based vaccines for breast and ovarian cancer.

Current State of the Company

We are a clinical-stage immunotherapy company specializing in the development of innovative peptide and gene-based immunotherapeutics and vaccines for the treatment of cancer. We now plan to conduct multiple Phase II clinical trials on our vaccines. The largest of these studies in triple-negative breast cancer is totally funded by a \$13.3 million grant from the U.S. Department of Defense to our collaborators at the Mayo Clinic in Jacksonville, Florida. A Company-sponsored trial in triple-negative breast cancer started during the second quarter of 2016 and a Company-sponsored trial in ovarian cancer was started in the fourth quarter of 2017. We believe that our development pipeline is strong and provides us the opportunity to continue to expand on collaborations with leading institutions and corporations.

We believe, the strength of our science and development approaches is becoming more widely appreciated, particularly as our clinical program has now generated positive interim data on both clinical programs in breast and ovarian cancer.




We continue to be focused on our entry into Phase II Triple-Negative Breast Cancer Trials including application for Fast Track & Orphan Drug Status as well as planning for Phase II HER2/neu+ Breast Cancer Trials.

We expect to continue to prosecute our PolyStart™ patent filings and develop new constructs to facilitate collaborative efforts in our current clinical indications and those where others have already indicated interest in combination therapies.

We believe that these fundamental programs and corporate activities have positioned TapImmune to capitalize on the acceptance of immunotherapy as a leading therapeutic strategy in cancer and infectious disease.

TapImmune's Pipeline

Clinical Program

	Indication	Design	Preclin.	Phase 1	Phase 2	Sponsors/ Collaborators
Folate Receptor-α	Triple-Negative Breast Cancer	Dose & Boost Safety			Follow-up Phase 2	
	Ovarian Cancer (platinum-sensitive)	Time to progression			Enrolling Phase 2	
	Triple-Negative Breast Cancer	Time to progression			Enrolling Phase 2	Mayo Clinic / DoD Fully Funded
	Ovarian Cancer (platinum-resistant)	Combo with durvalumab (anti PD-L1)			Enrolling Phase 2	Memorial Sloan Kettering Cancer Center / AstraZeneca / TapImmune
HER2/neu	TPIV100 DCIS Breast Cancer	Preparing Phase 1B		Start in 2018		Mayo Clinic / DoD Fully Funded
	TPIV110 Her2/neu Breast Cancer	Preparing Phase 1/2		IND update		

We have a pipeline of potential immunotherapies under development. Phase I clinical programs on HER2/neu+ for breast and ovarian cancer have been completed and strong immune responses in over 90% of patients treated has provided the rationale and catalyst to advance these programs to Phase II clinical trials.

In addition to the exciting clinical developments, our peptide vaccine technology may be coupled with our developed in-house PolyStart™ nucleic acid-based technology designed to make vaccines significantly more effective by producing four times the required peptides for the immune systems to recognize and act on. Our nucleic acid-based systems can also incorporate “TAP” which stands for Transporter associated with Antigen Presentation.

A key component to success is having a comprehensive patent strategy that continually updates and extends patent coverage for key products. It is highly unlikely that early patents will extend through ultimate product marketing, so extending patent life is an important strategy for ensuring product protection.

We have three active patent families that we are supporting:

1. Filed patents on PolyStart™ expression vector (owned by TapImmune and filed in 2014; this IP covers the use with TAP). We announced the allowance of this patent in February 2016.
2. Filed patents on HER2/neu+ Class II and Class I antigens: exclusive license from Mayo Foundation; and
3. Filed patents on Folate Receptor Alpha antigens: exclusive license from Mayo Foundation

While the pathway to successful product development takes time, we believe we have put in place significant for success. The strength of our product pipeline and access to leading scientists and institutions gives us a unique opportunity to make a major contribution to global health care.

With respect to the broader market, a major driver and positive influence on our activities has been the emergence and general acceptance of the potential of a new generation of immunotherapies that promise to change the standard of care for cancer. The immunotherapy sector has been greatly stimulated by the approval of Provenge® for prostate cancer and Yervoy™ for metastatic melanoma, progression of the areas of checkpoint inhibitors and adoptive T-cell therapy and multiple approaches reaching Phase II and Phase III status.

We believe that through our combination of technologies, we are well positioned to be a leading player in this emerging market. It is important to note that many of the late-stage immunotherapies currently in development do not represent competition to our programs, but instead offer synergistic opportunities to partner our antigen based immunotherapeutics, and PolyStart™ expression system. Thus, the use of naturally processed T-cell antigens discovered using samples derived from cancer patients plus our PolyStart™ expression technology to improve antigen presentation to T-cells could not only produce an effective cancer vaccine in its own right but also to enhance the efficacy of other immunotherapy approaches such as CAR-T and PD1 inhibitors for example.

Recent Developments and Company Highlights

Recent Developments

Completed GMP Manufacturing Scale Up and Second Clinical Lot of TPIV200; to Supply Additional Phase II Clinical Trials

We successfully completed a multi-gram production scale-up as well as GMP manufacturing of a second clinical lot of TPIV200. The vaccine supply will be used in the company's ongoing Phase II study in platinum-sensitive ovarian cancer, as well as the planned 280-patient Phase II study sponsored by the Mayo Clinic and funded by the U.S. Department of Defense for treating triple-negative breast cancer. We also made various improvements to the vaccine manufacturing process, resulting in, what we believe to be, a superior formulation of the vaccine that is more amenable to large-scale manufacturing and commercialization.

Clinical Program Pipeline Status Updates

Announcement of Publication of Clinical Trial Results for the TPIV200 Cancer Vaccine in Clinical Cancer Research

On March 15, 2018, we announced the publication of clinical data from a Phase I trial of TPIV200, our multi-epitope T-cell vaccine targeting Folate Receptor Alpha ("FRA") in patients with ovarian and breast cancer. The results show that TPIV200 vaccination was well tolerated by all patients and over 90% developed robust and durable antigen-specific immune responses against FRA without regard for HLA type, which aligns with the intended mechanism of action of the vaccine.

Enrollment Completed: Phase II TPIV200 Trial in Triple-Negative Breast Cancer

We have completed enrollment and are now treating and following the patients in a Phase II trial of our Folate Receptor Alpha cancer vaccine, TPIV200, in the treatment of triple-negative breast cancer, one of the most difficult cancers to treat, representing a clear unmet medical need. The open-label, 80-patient clinical trial is designed to evaluate dosing regimens, adjuvants, efficacy, and immune responses in women with triple-negative breast cancer. Key data from the trial is expected to be included in a future Biologics License Application submission to the FDA for marketing clearance. This trial is sponsored and conducted by TapImmune.

An independent Data Safety Monitoring Board (DSMB) reviews the safety every quarter in this ongoing Phase II study enrolling women with stage I-III triple-negative breast cancer who have completed initial surgery and chemo/radiation therapy. The randomized four-arm study is evaluating two doses of TPIV200 (a high dose and a low dose), each of which will be tested both with and without immune priming with cyclophosphamide prior to vaccination. Safety reviews are conducted quarterly and have shown no safety issues. The study completed enrollment at the end of 2017, with interim data expected in mid-2018. Details regarding this trial can be found at www.clinicaltrials.gov under identifier numbers NCT02593227 and FRV-002.

Enrolling Patients: Phase II TPIV200 Trial in Platinum-Sensitive Ovarian Cancer

We have opened multiple clinical sites and have enrolled the first 12 patients in a Phase II trial of TPIV200 for a 120-patient study on ovarian cancer patients who are responsive to platinum. We have received the FDA's Fast Track designation to develop TPIV200 as a maintenance therapy in combination with platinum, in platinum-responsive ovarian cancer patients, including women with Stage III and IV ovarian cancer who are in remission following their first round of successful platinum-based chemotherapy. This multi-center, double-blind efficacy study is sponsored and conducted by TapImmune. We expect to complete enrollment mid-2019. An interim analysis is planned based upon 50% patient enrollment, which we anticipate completing in the first half of 2019. Details regarding this trial can be found at www.clinicaltrials.gov under identifier numbers NCT02978222 and FRV-004.

Enrolling Patients: Phase II Mayo Clinic-U.S. DOD Trial of TPIV200 in Triple-Negative Breast Cancer

Patients are being enrolled in this Phase II study of TPIV200 in the treatment of triple-negative breast cancer, conducted by the Mayo Clinic and sponsored by the U.S. DOD. The 280-patient study is led by Dr. Keith Knutson of the Mayo Clinic in Jacksonville, Florida. Dr. Knutson is the inventor of the technology and a member of the Scientific Advisory Board at TapImmune. While we are supplying doses of TPIV200 for the trial and being reimbursed for the costs associated with manufacturing, the remaining costs associated with conducting this study will be funded by a \$13.3 million grant made by the DOD to the Mayo Clinic.

Enrolling Patients: Phase II Trial at Memorial Sloan Kettering of TPIV200 in Platinum-Resistant Ovarian Cancer

A Phase II study of TPIV200 in ovarian cancer patients who are not responsive to platinum, a commonly used chemotherapy for ovarian cancer, sponsored by Memorial Sloan Kettering Cancer Center ("MSKCC"), and in collaboration with AstraZeneca and TapImmune, has begun enrollment for a 40-patient study. The open-label study is designed to evaluate a combination therapy which includes our TPIV200 T-cell vaccine and AstraZeneca's checkpoint inhibitor, durvalumab. Because they are unresponsive to platinum, these patients have no real remaining options. If the combination therapy proves effective, we believe it would address a critical unmet need. TPIV200 has received Orphan Drug designation for use in the treatment of ovarian cancer. We successfully completed enrollment of the first safety cohort. This may enable MSKCC to increase the number of patients that can be enrolled and will subsequently increase the study's enrollment rate. Currently more than 50% of patients have been enrolled. An interim analysis is planned in the first half of 2018. Details regarding this trial can be found at www.clinicaltrials.gov under identifier numbers NCT02764333 and 16-011.

Open IND with FDA for TPIV110 in 2018: Phase II Protocol Now in Preparation

We have enhanced the formulation of our second cancer vaccine product, TPIV110 (the five-peptide product), following very strong safety and immune responses from a Phase I Mayo Clinic study using TPIV100 (the four-peptide product). TPIV110 targets HER2/neu+, which makes it applicable to breast, ovarian, and colorectal cancers. The enhanced TPIV product adds a fifth antigen which should produce an even more robust immune response activating both CD4+ (helper) and CD8+ (killer) T-cells. We have participated in a pre-Investigational New Drug ("pre-IND") meeting with the FDA and will file the amended IND containing the fifth peptide early in 2018. The protocol for a Phase II trial of TPIV110 in the treatment of HER2/neu+ positive breast cancer patients is currently under review by our Clinical Advisory Board and collaborators.

Mayo Clinic to Vaccinate Women With Ductal Carcinoma In Situ (DCIS) Using TapImmune TPIV100 HER2-targeted T-Cell Vaccine

On March 14, 2017, we announced that our partners at the Mayo Clinic received a grant from the U.S. Department of Defense to conduct a Phase IB study of our HER2-targeted vaccine candidate in an early form of breast cancer called DCIS. This is the second TapImmune vaccine to be tested in a fully funded study sponsored by the Mayo Clinic. Our collaborators at Mayo Clinic announced a \$3.8 million grant which we believe would fully fund this trial. If the study is successful, our vaccine may eventually augment or even replace standard surgery and chemotherapy, and potentially could become part of a routine immunization schedule for preventing breast cancer in healthy women. The study is expected to enroll 40-45 women with DCIS and begin to commence such enrollment during early 2018.

Company Highlights

Reverse Stock Split

On September 16, 2016, we effected a one-for-twelve reverse split of our common shares. The common shares began trading on a split-adjusted basis on September 16, 2016. The reverse stock split was effected in connection with our intention to apply to list our common stock on the Nasdaq Capital Market. On November 2, 2016, we received notification that our common stock was approved for listing on The Nasdaq Capital Market and it began trading on Tuesday, November 8, 2016 under the ticker symbol "TPIV."

June 2017 Private Placement Transaction

On June 26, 2017, we completed private placements of units with certain accredited investors. In the private placement transaction, we sold 1,503,567 shares of common stock for \$3.97 per share and five-year warrants to purchase an equal number of shares of common stock, at an exercise price of \$3.97 per share, for \$0.125 per warrant, with one common share and one warrant being sold together as a unit for a total of \$4.095 per unit. We issued and sold an aggregate of 1,503,567 units for aggregate gross proceeds of \$6.2 million. We incurred \$0.8 million in agency fees and legal costs. In connection with the offering, we reduced the exercise price for the warrants to purchase an aggregate of 653,187 shares of common stock issued to investors in the private placement that closed in August 2016 from \$6.00 per share to \$3.97 per share.

In addition, we issued five-year warrants to the placement agent in the offering providing for the purchase of up to 150,357 shares of our common stock for \$3.97 per share.

June 2017 Exercise and Repricing of Warrants Held by Existing Institutional Investors

On June 23, 2017, certain existing institutional shareholders of the Company who hold various outstanding warrants (i.e. C, D, E and F) to purchase Company common stock, entered into warrant repricing and exercise agreements.

Series E repriced and exercised warrants

Approximately 168,000 of Series E warrants were repriced from \$15.00 per share to \$3.97 per share and exercised immediately for gross proceeds of approximately \$0.7 million. Series E warrants to purchase approximately 187,000 shares of Company common stock being reduced from \$15.00 per share to \$4.50 per share.

Series C, D & F repriced warrants

Additionally, the exercise prices for certain investors of Series C, Series D and Series F warrants were reduced as follows:

Series	Number of		
	Warrant Shares Repriced	Pre-reduced Price	Post-reduced Price
Series C	313,750	\$ 6.00	\$ 4.00
Series D	312,500	\$ 9.00	\$ 4.00
Series F	292,500	\$ 7.20	\$ 4.00

The fair value relating to the modification of exercise prices on the repriced warrants was treated as deemed dividend on the statement of stockholders' equity of \$0.6 million.

June 2017 Agent Warrants

Pursuant to an agency agreement, dated May 12, 2017, by and between Katalyst Securities LLC and us, Katalyst agreed to act as our placement agent in connection with the June 26, 2017 private placement offering.

Pursuant to the agreement, we agreed to pay to Katalyst: (i) an aggregate cash fee for placement agent and financial advisory services equal to 10% of the gross proceeds of the Offering; (ii) a non-accountable expense allowance in the amount of Seventy Thousand Dollars (\$70,000); and (iii) five-year warrants to purchase a number of shares of our common stock equal to 10% of the number of shares sold in the offering. The Katalyst Warrants have the same terms as the private placement warrants issued in the offering. Based on the 1,503,567 shares of common stock sold in the private placement, we issued five-year warrants to Katalyst providing for the purchase of up to 150,357 shares of Company common stock for \$3.97 per share.

Previous Funding

Our previous funding has come from financings that we conducted in January and March of 2015, from the exercises of stock warrants. In our August 2016 private placement, we completed private placements of units with certain accredited investors. The units consisted of (i) one share of our common stock, par value \$0.001 per share and (ii) one five-year warrant to purchase one share of our common stock for \$6.00. We issued and sold an aggregate of 653,187 units at a purchase price per unit of \$4.80 for an aggregate of \$3.1 million. We incurred \$0.8 million in agency fees and legal costs. In addition, we issued five-year warrants to the placement agent in the offering providing for the purchase of up to 65,327 shares of our common stock for \$4.80 per share. In connection with the August 2016 private placement, holders of an aggregate of 583,333 outstanding Series C Warrants and 416,667 Series C-1 Warrants, each providing for the purchase of one share of our common stock for \$6.00 per share, exercised their warrants for an aggregate exercise price of \$6.0 million.

Financial Overview

Critical Accounting Policies

The condensed consolidated financial statements are prepared in conformity with U.S. GAAP, which require the use of estimates, judgments and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent liabilities at the date of the financial statements, and the reported amounts of expenses in the periods presented. We believe that the accounting estimates employed are appropriate and resulting balances are reasonable; however, due to inherent uncertainties in making estimates, actual results could differ from the original estimates, requiring adjustments to these balances in future periods. The critical accounting estimates that affect the consolidated financial statements and the judgments and assumptions used are consistent with those described under Part II, Item 7 of our Annual Report on Form 10-K for the year ended December 31, 2017.

Use of Estimates

Preparation of our financial statements in conformity with GAAP requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ materially from those estimates. Significant areas requiring management's estimates and assumptions include deferred taxes and related tax balances and disclosures, determining the fair value of stock-based compensation and stock-based transactions, the fair value of the components of the convertible notes payable, foreign exchange gains and losses, and accrued liabilities. Matters impacting our ability to continue as a going concern and contingencies also involve the use of estimates and assumptions.

Fair Value Measurements

The fair value of certain of our financial instruments, including cash and cash equivalents, accrued compensation, and other accrued liabilities, approximate cost because of their short maturities. We measure the fair value of certain of our financial assets and liabilities on a recurring basis. A fair value hierarchy is used to rank the quality and reliability of the information used to determine fair values. Financial assets and liabilities carried at fair value will be classified and disclosed in one of the following three categories:

- Level 1-Quoted prices (unadjusted) in active markets for identical assets and liabilities.
- Level 2-Inputs other than Level 1 that are observable, either directly or indirectly, such as unadjusted quoted prices for similar assets and liabilities, unadjusted quoted prices in the markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.
- Level 3-Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

Stock-Based Compensation

Stock-based compensation is measured at the grant date based on the fair value of the award. The fair value of the award that is ultimately expected to vest is recognized as expense on a straight-line basis over the requisite service period, which is generally the vesting period. The expense recognized for the portion of the award that is expected to vest has been reduced by an estimated forfeiture rate. The forfeiture rate is determined at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates.

Expected Term — The expected term of options represents the period that our stock-based awards are expected to be outstanding based on the simplified method, which is the half-life from vesting to the end of its contractual term.

Expected Volatility — We compute stock price volatility over expected terms based on our historical common stock trading prices.

Risk-Free Interest Rate — We base the risk-free interest rate on the implied yield available on U. S. Treasury zero-coupon issues with an equivalent remaining term.

Expected Dividend — We have never declared or paid any cash dividends on our common shares and does not plan to pay cash dividends in the foreseeable future, and, therefore, use an expected dividend yield of zero in our valuation models. We recognize fair value of stock options granted to nonemployees as stock-based compensation expense over the period in which the related services are received.

Derivative Liability

We evaluate our convertible debt, options, warrants or other contracts to determine if those contracts or embedded components of those contracts qualify as derivatives to be separately accounted. This accounting treatment requires that the carrying amount of embedded derivatives be marked-to-market at each balance sheet date and carried at fair value. In the event that the fair value is recorded as a liability, the change in fair value during the period is recorded in the Statement of Operations as either income or expense. Upon conversion, exercise or modification to the terms of a derivative instrument, the instrument is marked to fair value at the conversion date and then the related fair value is reclassified to equity.

In circumstances where the embedded conversion option in a convertible instrument is required to be bifurcated and there are also other embedded derivative instruments in the convertible instrument that are required to be bifurcated, the bifurcated derivative instruments are accounted for as a single, compound derivative instruments.

The classification of financial instruments, including whether such instruments should be recorded as liabilities or as equity, is re-assessed at the end of each reporting period. Equity instruments that are initially classified as equity that become subject to reclassification are reclassified to liability at the fair value of the instrument on the reclassification date. Derivative instrument liabilities will be classified in the balance sheet as current or non-current based on whether or not net-cash settlement of the derivative instrument is expected within twelve months of the balance sheet date.

Management must determine whether an instrument (or an embedded feature) is indexed to our stock. An entity should use a two-step approach to evaluate whether an equity-linked financial instrument (or embedded feature) is indexed to its own stock, including evaluating the instrument's contingent exercise and settlement provisions. The application of this exercise affects the accounting for (i) certain freestanding warrants that contain exercise price adjustment features and (ii) convertible notes containing full-ratchet and anti-dilution protections (iii) certain free-standing warrants that contain contingently puttable cash settlement.

Results of Operations

Year Ended December 31, 2017 Compared to the Year Ended December 31, 2016

We recorded a net loss of \$11.0 million or (\$1.16) basic and diluted per share during the year ended December 31, 2017 compared to a net loss of \$2.5 million or (\$0.36) basic per share and (\$0.72) diluted per share during the year ended December 31, 2016.

Operating Expenses

Operating expenses incurred during the fiscal year ended December 31, 2017 were \$11.7 million compared to \$8.5 million in the prior year. Significant changes and expenditures are outlined as follows:

- Research and development costs during the fiscal year ended December 31, 2017 were \$5.3 million compared to \$3.8 million during the prior fiscal year. This was due to our increases from prior period for planned expenses relating to our clinical trials.
- General and administrative expenses increased to \$6.4 million during the year ended December 31, 2017 from \$4.7 million during the prior period. The increased expenses period over period were attributable to the following:
 - o stock-based compensation relating to stock grants pursuant to Peter Hoang's and Glynn Wilson's employment agreements,
 - o stock-based compensation for employees and outside consultants,
 - o legal, audit and other professional fees,
 - o investor relations expenses, and
 - o expenses relating to our shareholder meeting.

Other Income (Expense)

Change in fair value of warrant liabilities

The change in fair value of warrant liabilities for the year ended December 31, 2017 was \$5,500 as compared to \$5.9 million for the year ended December 31, 2016. On August 10, 2016, we amended the Series A and A-1, Series C and C-1, Series D and D-1 and Series E and E-1 warrants agreements issued by us in January and March 2015 to remove the clause that caused the warrants to be classified as warrant liabilities, and the variance period over period is due to that reason.

The fair value of the warrant liabilities decreased by \$5,500 for the year ended December 31, 2017 and is reflected by a corresponding loss in the condensed consolidated statement of operations. This compares to a decrease in the fair value of derivative liabilities for the year ended December 31, 2016 of \$5.9 million. We revalue the derivative liabilities at each balance sheet date to fair value. The fair value is determined using Black-Scholes valuation model using various assumptions. The two most significant changes in the assumptions were the difference in the strike price and the number of warrants with derivative liabilities.

Debt extinguishment gain

In 2003 we entered into a license agreement with a foreign based third-party for certain adenovirus technology. The license agreement was amended several times between inception and 2008 at which time it was amended and restated and had a fixed three-year term expiring in 2011. During such time, we did not pursue the technology and have not undertaken further work in the area covered by the technology license. Neither we nor the third-party took further actions under or pursuant to the license agreement. We carried a historical accrual of approximately \$0.5 million under the amended license agreement related to certain obligations provided for in the license agreement. The license agreement was governed by the laws of a foreign jurisdiction. We sought and obtained legal advice related to such accrued obligations under the expired license agreement. We relied upon a judicial conclusion, as opined upon by outside legal counsel in the applicable foreign jurisdiction, that a court in such foreign jurisdiction would grant relief releasing us from liability under the license agreement, and in accordance with Accounting Standards Codification 405 "Extinguishment of Liabilities", we recorded a debt extinguishment gain of \$0.5 million and reduced the liability amount owed to \$0 during the year ended December 31, 2017.

Grant income

During the years ended December 31, 2017 and 2016, we received \$0.2 million of a grant awarded to Mayo Foundation from the U.S. Department of Defense for the Phase II Clinical Trial of TPIV200. The grant compensated us for our out-of-pocket costs associated with clinical supplies which were manufactured and provided by us for the clinical study.

Shares issued in debt settlement agreements

During the year ended December 31, 2016 we incurred \$0.1 million loss in connection with shares issued to satisfy outstanding debt agreements from previous years.

The weighted average number of shares outstanding were 9.5 million basic and diluted for the year ended December 31, 2017 compared to 6.9 million basic and 7.4 million diluted for the year ended December 31, 2016.

Liquidity and Capital Resources

We have not generated any revenues since inception; we have financed our operations primarily through public and private offerings of our stock and debt including warrants and the exercise thereof.

The following table sets forth our cash and working capital as of December 31, 2017 and 2016:

	December 31, 2017	December 31, 2016
Cash	\$ 5,129,000	\$ 7,851,000
Working Capital	\$ 3,658,000	\$ 6,185,000

Cash Flows

The following table summarizes our cash flows for the years ended December 31, 2017 and 2016:

	For the Years Ended	
	December 31,	
	2017	2016
Net Cash provided by (used in):		
Operating activities	\$ (8,439,000)	\$ (6,510,000)
Financing activities	\$ 5,717,000	\$ 7,785,000
Net increase (decrease) in cash	<u>\$ (2,722,000)</u>	<u>\$ 1,275,000</u>

Financings

June 2017 Private Placement Transaction

On June 26, 2017, we completed private placements of units with certain accredited investors. In the private placement transaction, we sold 1,503,567 shares of common stock for \$3.97 per share and five-year warrants to purchase an equal number of shares of common stock, at an exercise price of \$3.97 per share, for \$0.125 per warrant, with one common share and one warrant being sold together as a unit for a total of \$4.095 per unit. We issued and sold an aggregate of 1,503,567 million units for aggregate gross proceeds of \$6.2 million. We incurred \$0.8 million in agency fees and legal costs. In connection with the offering, we reduced the exercise price for the warrants to purchase an aggregate of 653,187 shares of common stock issued to investors in the private placement that closed in August 2016 from \$6.00 per share to \$3.97 per share.

Previous Funding

Our previous funding has come from financings that we conducted in January and March of 2015, from the exercises of stock warrants. In our August 2016 private placement, we completed private placements of units with certain accredited investors. The units consisted of (i) one share of our common stock, par value \$0.001 per share and (ii) one five-year warrant to purchase one share of our common stock for \$6.00. We issued and sold an aggregate of 653,187 units at a purchase price per unit of \$4.80 for an aggregate of \$3.1 million. We incurred \$0.8 million in agency fees and legal costs. In addition, we issued five-year warrants to the placement agent in the offering providing for the purchase of up to 65,327 shares of our common stock for \$4.80 per share. In connection with the August 2016 private placement, holders of an aggregate of 583,333 outstanding Series C Warrants and 416,667 Series C-1 Warrants, each providing for the purchase of one share of our common stock for \$6.00 per share, exercised their warrants for an aggregate exercise price of \$6.0 million.

Future Capital Requirements

As of December 31, 2017, we had working capital of \$3.8 million, compared to working capital of \$6.2 million as of December 31, 2016. We expect our expenses to continue at a similar pace into 2018 primarily to continue funding our in-process Phase II clinical trials. Two of our clinical studies are expected to be funded by a total of \$17.1 million of grants made by the DOD to the Mayo Clinic. Our collaborators at Mayo Clinic announced a \$3.8 million grant which we expect would fully fund a Phase II clinical trial in DCIS that we had planned for our HER2/neu+ vaccine.

Our capital requirements for 2018 and beyond will depend on numerous factors, including the success of our research and development, the resources we devote to develop and support our technologies and our success in pursuing strategic licensing and funded product development collaborations with external partners as well as other strategic initiatives we may determine to pursue. Subject to our ability to raise additional capital, we expect to incur substantial expenditures to further develop our technologies including continued increases in costs related to research, nonclinical testing and clinical studies and trials, as well as costs associated with our capital raising efforts and being a public company.

We believe our existing cash will fund our operations into the third quarter of fiscal 2018. We will require substantial additional capital to conduct research and development, to fund nonclinical testing and Phase II clinical trials of our licensed, patented technologies, and to begin cultivating collaborative relationships for the Phase II and future Phase III clinical testing. Our plans could include seeking both equity and debt financing, alliances or other partnership agreements with entities interested in our technologies, or other business transactions that could generate sufficient resources to ensure continuation of our operations and research and development programs.

We expect to continue to seek additional funding for our operations. Any such required additional capital may not be available on reasonable terms, if at all. If we were unable to obtain additional financing, we may be required to reduce the scope of, delay or eliminate some or all of our planned clinical testing and research and development activities, which could harm our business. The sale of additional equity or debt securities may result in additional dilution to our shareholders. If we raise additional funds through the issuance of debt securities or preferred stock, these securities could have rights senior to those holders of our common stock and could contain covenants that could restrict our operations. We also will require additional capital beyond our currently forecasted amounts.

Because of the numerous risks and uncertainties associated with research, development and commercialization of our product candidates, we are unable to estimate the exact amounts of our future working capital requirements. Our future funding requirements will depend on many factors, including, but not limited to:

- the number and characteristics of the product candidates we pursue;
- the scope, progress, results and costs of researching and developing our product candidates, and conducting pre-clinical and clinical trials including the research and development expenditures we expect to make in connection with our license agreements with Mayo Foundation;
- strategic transactions we may undertake;
- the timing of, and the costs involved in, obtaining regulatory approvals for our product candidates;
- our ability to maintain current research and development licensing agreements and to establish new strategic partnerships and collaborations, licensing or other arrangements and the financial terms of such agreements;
- our ability to achieve our milestones under our licensing arrangements and the payment obligations we may have under such agreements;
- the costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing patent claims, including litigation costs and the outcome of such litigation; and
- the timing, receipt and amount of sales of, or royalties on, our future products, if any.

We have based our estimates on assumptions that may prove to be wrong. We may need to obtain additional funds sooner or in greater amounts than we currently anticipate.

Various conditions outside of our control may detract from our ability to raise additional capital needed to execute our plan of operations, including overall market conditions in the international and local economies. We recognize that the United States economy has suffered through a period of uncertainty during which the capital markets have been impacted, and that there is no certainty that these levels will stabilize or reverse despite the optics of an improving economy. Any of these factors could have a material impact upon our ability to raise financing and, as a result, upon our short-term or long-term liquidity.

Going Concern

We have no sources of revenue to provide incoming cash flows to sustain our future operations. As outlined above, our ability to pursue our planned business activities is dependent upon our successful efforts to raise additional capital. However the Company cannot guarantee it will be successful in raising funds in the future.

These factors raise substantial doubt regarding our ability to continue as a going concern. Our consolidated financial statements have been prepared on a going concern basis, which implies that we will continue to realize our assets and discharge our liabilities in the normal course of business. Our financial statements do not include any adjustments to the recoverability and classification of recorded asset amounts and classification of liabilities that might be necessary should we be unable to continue as a going concern.

Off-Balance Sheet Arrangements

We have not entered into any off-balance sheet arrangements that have or are reasonably likely to have a current or future effect on our financial condition, changes of financial condition, revenues, expenses, results of operations, liquidity, capital expenditures or capital resources that is material to investors.

Tax Loss and Credit Carryforwards

As of December 31, 2017, we have approximately \$41.7 million of federal and \$21.9 million of state Net Operating Loss (“NOL”s) that may be available to offset future taxable income, if any. The federal net operating loss carryforwards, if not utilized, will expire between 2029 and 2037. The state net operating loss carryforwards, if not utilized, will expire in 2037. Any greater than 50% change in ownership under Section 382 of the Internal Revenue Code, or the Code, places significant annual limitations on the use of such net operating loss carryforwards.

At December 31, 2017 and 2016, we recorded a 100% valuation allowance against our deferred tax assets of approximately \$16.7 million and \$13.8 million, respectively, as our management believes it is uncertain that they will be fully realized. If we determine in the future that we will be able to realize all or a portion of our net operating loss carryforwards, an adjustment to valuation allowance against our deferred tax assets would increase net income in the period in which we make such a determination.

Inflation

Inflation affects the cost of raw materials, goods and services that we use. In recent years, inflation has been modest. However, fluctuations in energy costs and commodity prices can affect the cost of all raw materials and components. The competitive environment somewhat limits our ability to recover higher costs resulting from inflation by raising prices. Although we cannot precisely determine the effects of inflation on our business, it is management’s belief that the effects on revenues and operating results will not be significant. We do not believe that inflation has had a material impact on our results of operations for the periods presented, except with respect to payroll-related costs and other costs arising from or related to government imposed regulations.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are a smaller reporting company as defined by Rule 12b-2 of the Exchange Act and are not required to provide the information required under this item.

ITEM 8. FINANCIAL STATEMENTS

The Financial Statements are incorporated herein by reference to pages F-1 to F-24 at the end of this report and the supplementary data is not applicable.

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

We have had no changes in, or disagreements with our principal independent accountants.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

We have established disclosure controls and procedures, as such term is defined in Rule 13a-15(e) under the Securities Exchange Act of 1934. Under the supervision and with the participation of our management, we conducted an evaluation of the effectiveness of our disclosure controls and procedures as of December 31, 2017 to ensure that the information required to be disclosed by us in the reports that we file or submit under the Securities Exchange Act of 1934 is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by us in the reports that we file or submit under the Securities Exchange Act of 1934 is accumulated and communicated to our management, including our principal executive officer and principal financial officer as appropriate, to allow timely decisions regarding required disclosure. Our management, with participation of our principal executive officer and principal financial officer, has evaluated the effectiveness of our disclosure controls and procedures as of December 31, 2017. Based on that evaluation, our principal executive officer and principal financial officer concluded that our disclosure controls and procedures were effective as of December 31, 2017.

Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal controls over financial reporting, as such term is defined in Exchange Act Rule 13a15(f). Under the supervision and with the participation of our management, including our principal executive, financial and accounting officer, we conducted an evaluation of the effectiveness of our internal controls over financial reporting as of December 31, 2017. This evaluation was based on the framework in Internal Control-Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"). Based on this evaluation, our management concluded that our internal control over financial reporting was effective as of December 31, 2017. The Company's internal control over financial reporting as of December 31, 2017 has not been audited by the Company's independent accountants.

Changes in Internal Control Over Financial Reporting

During the year ended December 31, 2017 and as of the date of this filing, we have completed remediation on the five material weaknesses identified in our Annual Report on Form 10-K, filed in March 2017. During the year ended December 31, 2017, we:

- prepared a comprehensive entity-wide risk assessment to identify, evaluate and ultimately report on risks to financial reporting throughout the organization. Following this assessment, we undertook an action plan to strengthen internal controls and procedures;
- prepared comprehensive documentation, including process flows, and risk control matrices for key financial processes and tested key controls for design and operating effectiveness;
- further segregated duties within our finance and accounting functions, to ensure that incompatible duties are segregated;

- implemented and tested a new process in connection with our year-end financial close to more fully document our identification of related parties and related party transactions, to ensure that all material transactions and developments impacting the financial statements are reflected and properly recorded;
- implemented and tested new processes to more fully document and test our accounting operations throughout the organization, including the review, supervision and monitoring taking place;
- expanded the personnel resources allocated to our internal controls over financial reporting, and the activities performed for us, by contracting two external firms; and
- implemented and tested a whistleblower policy, with a hotline number allowing for anonymous communications, to encourage open and effective channels of information in order to help ensure the accuracy and reliability of our financial statements and disclosures and identification of possible fraudulent activities.

During the year ended December 31, 2017 and as of the date of this filing, the Company has completed remediation of the material weaknesses identified in the Company's annual report on Form 10-K, filed in March 2017. Otherwise, there were no changes in the Company's internal control over financial reporting identified in connection with the evaluation required by paragraph (d) of the Exchange Act Rules 13a-15 or 15d15 that occurred during the quarter ended December 31, 2017 that materially affected, or were reasonably likely to materially affect, the Company's internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

The disclosure set forth below is provided in lieu of a separate Form 8-K filing that otherwise would have been required with respect to Item 1.01 Entry into a Material Definitive Agreement of Form 8-K.

Indemnification Agreements with Directors and Officers

On March 23, 2018, we entered into indemnification agreements (the "Indemnification Agreements") with each of our current directors and officers (collectively the "Indemnitees"). The Indemnification Agreements clarify and supplement indemnification provisions already contained in our Bylaws and generally provide that we shall indemnify the Indemnitees to the fullest extent permitted by Nevada law, subject to certain exceptions, against expenses, judgments, fines and other amounts actually and reasonably incurred in connection with their service as a director or officer and also provide for rights to advancement of expenses and contribution. The foregoing description of the Indemnification Agreements is qualified in its entirety by the form of Indemnification Agreement incorporated herein by reference as Exhibit 10.27 to this Annual Report on Form 10-K.

Compensatory Arrangements of Certain Officers.

Bonus Awards 2017

On March 23, 2018 the Board of Directors approved a discretionary 2017 cash bonus award for Peter Hoang, our Chief Executive Officer in the amount of \$11,300.

On March 23, 2018 the Compensation Committee approved 2017 bonus awards for each of Dr. Wilson, our executive Chairman and strategic advisor and Mr. Loiacono, our Chief Financial Officer for their performance during 2017 in the amounts of \$25,600 and \$30,000, respectively.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Our directors and executive officers and their respective ages as of the date of this annual report are as follows:

Name	Age	Position with the Company
Dr. Glynn Wilson	71	Chairman of the Board
Peter L. Hoang	46	President, Chief Executive Officer and a Director
Sherry Grisewood	65	Independent Director
David Laskow-Pooley	63	Independent Director
Mark Reddish	63	Independent Director
Joshua Silverman	47	Independent Director
Frederick Wasserman	63	Independent Director
Michael J. Loiacono	52	Chief Financial Officer and Chief Accounting Officer

The following describes the business experience of each of our directors and executive officers, including other directorships held in other public companies:

Directors of the Company

Glynn Wilson, Ph. D., Chairman of the Board

Dr. Wilson has served as a director since February 2005 and served as a chairman since July 2009. Dr. Wilson currently serves as a strategic advisor to the Company. Dr. Wilson served as Chief Executive Officer between July 2009 and September 2017 and served as our President between November 2015 and September 2017 (except between July 2016 and April 2017 where a former officer served as President), following which Mr. Hoang was appointed to serve as President and Chief Executive Officer. Prior to joining us, Dr. Wilson was President and Chief Scientific Officer of Auriga Pharmaceuticals, a public specialty pharmaceutical company. Dr. Wilson was Research Area Head, Cell and Molecular Biology in Advanced Drug Delivery at Ciba-Geigy Pharmaceuticals from 1984-1989 and Worldwide Head of Drug Delivery at SmithKline Beecham from 1989 to 1994. He was the Chief Scientific Officer at Tacora Corporation from 1994 to 1997 and was the Vice-President, R&D, at Access Pharmaceuticals from 1997 to 1998. Dr. Wilson was President and Chief Scientific Officer of Auriga Pharmaceuticals, a public specialty pharmaceutical company from 2004 until 2006. He was a faculty member at Rockefeller University, New York, in the laboratory of the Nobel Laureates, Sanford Moore and William Stein, from 1974 to 1979. He is a recognized leader in the development of drug delivery systems and has been involved in taking lead products & technologies from concept to commercialization. Dr. Wilson has a Ph. D. in Biochemistry and conducted medical research at The Rockefeller University, New York.

Dr. Wilson brings an extensive background of success in corporate management and product development with tenures in both major multinational pharmaceutical companies and start-up pharmaceutical/biotech organizations.

Peter L. Hoang, President and Chief Executive Officer

Mr. Hoang has served as a director since September 2017. Mr. Hoang also serves as our President and Chief Executive Officer, positions which he commenced, September 22, 2017 succeeding Dr. Wilson, who remains as our Chairman. Prior to joining us, Mr. Hoang served as Senior Vice President of Business Development and Strategy at Bellicum Pharmaceuticals from [November 2014 to March 2017, as the Managing Director of Innovations at The University of Texas MD Anderson Cancer Center, where he headed the new venture formation and development effort for the institution from September 2012 to November 2014. Before joining MD Anderson, Mr. Hoang served as a senior investment banker from November 2010 to March 2012, most recently as Managing Director and head of healthcare mergers & acquisitions advisory for CIT Group. Mr. Hoang has also served in the M&A departments at Oppenheimer, J.P. Morgan, Merrill Lynch, and Deutsche Bank. He earned an M.B.A. with high honors distinction from the Anderson School of Management at UCLA and a B.A. from Yale University.

Mr. Hoang brings over twenty years of investment banking, venture capital, immuno-oncology and public company executive management experience to us.

Sherry Grisewood, Director

Ms. Grisewood has served as a director since March 2013. Between December 2012 and June 2017, Ms. Grisewood was associated with Dawson James Securities Inc., first as Managing Director, Corporate Finance until September 2015 and most recently as Managing Partner, Life Science Research. Prior to joining Dawson James, over a 12-year period as an investment banker Ms. Grisewood led Lifesciences specialty investment banking practices for two New York-based investment banks and acted as an independent strategic advisor and consultant in life sciences. Prior to consulting for investment banks, Ms. Grisewood served as Director of Research for a mid-tier brokerage company and a leading independent investment research company. She currently serves on the Board of Mobitech Regenerative Medicine, a private medical device company, and has served as a Board member of BRTI Life Sciences and Conception Technology, both private medical device companies. Ms. Grisewood is a member of the American Society of Gene and Cell Therapy, the Tissue Engineering and Regenerative Medicine Society International, Women in Bio and the CFA Institute. Ms. Grisewood holds a Bachelor of Science degree in Life Science from Ramapo College of New Jersey.

Ms. Grisewood has over 30 years of securities industry experience in a range of investment banking, advisory and research-related activities and Ms. Grisewood brings a wealth of knowledge about the securities and biomedical industries to us. Ms. Grisewood has participated in over 70 transaction-related projects involving initial public offerings, secondary offerings, PIPE's, private equity, M&A and licensing transactions. These deals and projects represented US, Canadian, Scandinavian, UK, Chinese and Australian clients with advanced therapeutic technologies and delivery systems in the life sciences such as those addressing nucleic acid therapeutics, regenerative medicine, immune-therapy, CNS diseases, or leading-edge device technologies for life science special situations.

David Laskow-Pooley, Director

Mr. Laskow-Pooley has served as a director since March 2015. Mr. Laskow-Pooley is currently CEO of LondonPharma Ltd, a clinical stage company re-purposing approved drugs through novel drug delivery technologies, where he has been employed since April 2012. He is also a Co-founder of Pharmafor Ltd, a small company incubator. Mr. Laskow-Pooley was formerly Managing Director (UK) of Nasdaq-listed drug discovery platform company, OSI, where he was employed from 2002 to 2004. Mr. Laskow-Pooley also was part of the corporate team that developed and launched Tarceva for the treatment of lung cancer with marketing partners Roche and Genentech. Mr. Laskow-Pooley is a pharmacist with more than 40 years of experience in the Pharmaceutical, Diagnostic and Device sectors, and has had a distinguished career in multinational pharmaceutical companies including Glaxo SmithKline and Abbott, in addition to Life Technologies (Biotech Life Sciences) and Amersham, now GE Healthcare (Diagnostic Imaging). Mr. Laskow-Pooley currently serves on the boards of directors of Pharmafor Ltd, a UK private company and Neurovive AB, a Swedish and US public company. Mr. Laskow-Pooley attended the Sunderland School of Pharmacy and received his BS degree in Pharmacy.

Mr. Laskow-Pooley brings extensive experience in the pharmaceutical industry, and with start-up and early stage pharmaceutical/biotech organizations, to us.

Mark Reddish, Director

Mr. Reddish has served as a director since April 2012. Mr. Reddish joined the Company as Vice-President of Product Development between November 2011, and February 2012. Mr. Reddish previously served as Vice President of Product Development and Principal Investigator, Biodefense at ID Biomedical, Bothell, WA, where he was employed from 1998 to 2005. At Biomira Inc. (renamed Oncothyreon), where he was senior director of Research Immunology from 1991 to 1998, he was responsible for development of their FDA approved tumor marker assays (CA15-3, CA-125, CA19-9, PSA) and lead early research and clinical development of their immunotherapeutic vaccine program. Mr. Reddish has a degree in Biology from Bates College.

Mr. Reddish brings thirty-five years of biomedical experience ranging from clinical and academic research to industrial product development and has already brought significant value and insight to us. Mr. Reddish has over 50 publications in the areas of immunology and microbiology and a number of issued and pending patents in the area of vaccine technologies.

Frederick Wasserman, Director

Mr. Wasserman has served as a director since January 2016. Mr. Wasserman is a business executive with over 35 years of business experience, having served at various companies in roles including Chief Executive Officer, President, Chief Operating Officer and Chief Financial Officer. Mr. Wasserman is currently the President of FGW Partners LLC, Pennington, NJ, where he has been employed since 2007. Mr. Wasserman currently serves on the boards of directors of DHL Holdings Corp, MAM Software Group, Inc., and SMTC Corporation. Mr. Wasserman was employed as a certified public accountant from 1976 to 1989. He earned a Bachelor of Science degree from The Wharton School at The University of Pennsylvania in 1976.

Mr. Wasserman brings to our Board an extensive array of business and industry experience as well as experience as a director of public companies.

Joshua Silverman, Director

Mr. Silverman has served as a director since November 2016. Mr. Silverman is the co-founder and Managing Member of Parkfield Funding LLC, an investment and consulting firm, since August 1, 2016. Mr. Silverman was a former Principal and Managing Partner of Iroquois Capital Management, LLC (“Iroquois”), where he served as Co-Chief Investment Officer of Iroquois from 2003 until August 1, 2016. From 2000 to 2003, Mr. Silverman served as Co-Chief Investment Officer of Vertical Ventures, LLC, a merchant bank. Prior to forming Iroquois, Mr. Silverman was a Director of Joele Frank, a boutique consulting firm specializing in mergers and acquisitions. Previously, Mr. Silverman served as Assistant Press Secretary to the President of the United States. In the past five years, Mr. Silverman has served on the boards of directors of Neurotrope, Inc., MGT Capital Investments Inc., National Holdings Corporation, Alanco Technologies Inc., Protagenic Therapeutics, Inc. and WPCS International Incorporated. Mr. Silverman received his B.A. from Lehigh University in 1992.

Mr. Silverman brings to our Board extensive public company board experience, and financial and investment experience, including with pre-revenue biotechnology companies.

Current Executive Officers and Key Employee

We are led by a team of executives that are chosen by the Board of Directors. Currently, we have three executive officers, set forth below is biographical information for executive officers and certain identified key employees.

Peter L. Hoang, President and Chief Executive Officer.

Mr. Hoang’s biography is included above under Directors of the Company.

Michael J. Loiacono, Chief Financial Officer

Mr. Loiacono has served as our Chief Financial Officer, Secretary and Treasurer since August 25, 2016. Prior to joining us as our Chief Financial Officer, Mr. Loiacono was responsible for the company’s strategic development to include new products and services, new market penetration and maximizing gross and net revenues at FCTI, Inc. Between 2006 and 2013, Mr. Loiacono served as Chief Financial Officer of Global Axxess Corp, a publicly-traded company until it was acquired by FCTI, Inc. At Global Axxess, Michael oversaw the overall financial strategy of the company, including capital raises, mergers & acquisitions, corporate finance, treasury, financial planning and analysis, accounting, investor relations, external auditing and was responsible for Global Axxess’ corporate strategy function. Prior to FCTI/Global Axxess, Michael held various positions of increasing responsibility in finance management through several private and publicly-traded organizations. Michael attended Rutgers University, Business School where he received his B.S. degree.

Michael J. Loiacono has more than 25 years of financial management experience, which includes public company services as a chief financial officer.

Key Employees

Robert T. Florkiewicz

Dr. Florkiewicz serves as the Company's Senior Director of Molecular Biology & Virology. Dr. Florkiewicz previously served as a consultant to the Company from September 2014 until January 2017. Dr. Florkiewicz has experience in both academic and biotechnology environments. Most recently he conducted research on human embryonic stem cell-based therapies at the University of Washington. He was the Director of Cellular and Molecular Biology and co-founder of Ciblex Corporation, a spin-out from his laboratory at the Scripps Institute, San Diego. He was a patent agent at Seed Intellectual Law Group in Seattle and at ID Biomedical, where he managed the company's intellectual property portfolio prior to and through its acquisition by GlaxoSmithKline. As a Research Scientist at Synergen, Inc., he helped establish the viral vector and animal cell expression group, and also discovered novel molecular mechanisms modulating FGF2 gene expression. He has a Ph.D. in Molecular and Development Biology from the University of Arizona (focusing on the molecular biology of various RNA viruses) and was a postdoctoral fellow at the Salk Institute (focusing on the intracellular trafficking of proteins encoded by vesicular stomatitis virus).

CORPORATE GOVERNANCE AND BOARD MATTERS

Leadership Structure of the Board of Directors

Our property, affairs and business are under the general management of our Board of Directors as provided by the laws of the State of Nevada and our Bylaws. Our bylaws and corporate governance guidelines do not require that our Chairman and Chief Executive Officer positions be separate but such positions are currently separated between Dr. Wilson as our Chairman and Peter Hoang as our Chief Executive Officer and President.

The Board of Directors conducts its business through meetings of the full Board and through committees of the Board. The Board of Directors has appointed standing Audit, Compensation and Nominating and Governance Committees of the Board of Directors comprised of independent directors. The independent members of our board meet during board meetings in separate executive session without any member of management present.

The Board periodically reviews the size of the Board and recommends any changes it determines to be appropriate given our needs. Under our Bylaws, the number of members on the Board may be increased or decreased by resolution of the Board.

Independence of Directors

Our common stock is listed on a national securities exchange, the Nasdaq Capital Market. Accordingly, in determining whether our directors are independent, we are required to comply with the rules of the Nasdaq Capital Market. We also expect to continue to comply with securities and other laws and regulations regarding the independence of directors, including those adopted under Section 301 of the Sarbanes-Oxley Act and Rule 10A-3 under the Securities and Exchange Act of 1934 with respect to the independence of Audit Committee members. The Nasdaq Capital Market listing standards define an "independent director" as a person other than an executive officer or employee of the company or any other individual having a relationship which, in the opinion of the issuer's board of directors, would interfere with the exercise of independent judgment in carrying out the responsibilities of a director. The Board has affirmatively determined that each of the following directors, constituting a majority of the Board, is independent within the meaning of the Nasdaq Capital Market listing standards:

Sherry Grisewood
David Laskow-Pooley
Mark Reddish
Joshua Silverman
Frederick Wasserman

Such independence definition includes a series of objective tests, including that the director is not an executive officer employee of the company and has not engaged in various types of business dealings with the company. In addition, as further required by the Nasdaq Capital Market listing standards, the Board has made a subjective determination as to each independent director that no relationships exist which, in the opinion of the Board, would interfere with the exercise of independent judgment in carrying out the responsibilities of a director.

Meetings of the Board of Directors

In 2017, our board of directors met five times. Our board of directors adopted various resolutions pursuant to five unanimous written consents in lieu of a meeting during the year ended December 31, 2017. Five board members attended 100% of the aggregate of (i) meetings of our board of directors during the year and (ii) the total number of meetings of all committees on our board of directors on which the incumbent directors served. One director attended 80% of the aggregate of (i) the meetings of our board of directors during the year and (ii) the total number of meetings of all committees of our board of directors on which the incumbent directors served. Two directors attended one meeting each, which was 100% of the total number of meeting on which the director served, due to one director leaving the board during the year and one director joining the board during the year.

Term of Office

Our directors are appointed for a one-year term to hold office until the next annual general meeting of our stockholders or until they resign or are removed from the board in accordance with our bylaws. Our officers are appointed by our Board of Directors and hold office until they resign or are removed from office by the Board of Directors.

Shareholder Communications with the Board of Directors

Our Corporate Governance Guidelines provide that our Chief Executive Officer are responsible for establishing effective communications with our shareholders. Our board of directors has implemented a process for shareholders to send communications to our board of directors and to specific individual directors. Any shareholder desiring to communicate with our board of directors, or with specific individual directors, may do so by writing to our Secretary at 5 W. Forsyth Street, Suite 200, Jacksonville, Florida 32202. Our Secretary will promptly forward all such sealed communications to our board of directors or such individual directors, as applicable.

Committees of the Board of Directors

Our board of directors has three standing committees – the audit committee, the compensation committee, and the nominating and corporate governance committee. Each of our committees operates pursuant to a written charter which, as in effect from time to time, may be found on our website at www.tapimmune.com. Each of the committees is composed of independent directors, consistent with the independence standards defined by the SEC and NASDAQ. Each committee has the right to retain its own legal and other advisors.

The following table reflects the current membership of each Board committee:

Name	Committee Membership		
	Audit Committee	Compensation Committee	Nominating and Corporate Governance Committee
Sherry Grisewood	Chair	√	
David Laskow-Pooley	√	Chair	√
Mark Reddish		√	√
Joshua Silverman			
Frederick Wasserman	√		Chair
Glynn Wilson(1)			

(1) Became non-employee director on September 22, 2017.

Audit Committee

Our Board of Directors has established an Audit Committee which functions pursuant to a written charter last amended by our Board of Directors in July 2016. The Audit Committee members currently consist of Ms. Sherry Grisewood, Mr. David Laskow-Pooley and Mr. Frederick Wasserman with Ms. Grisewood serving as Chair. The Board has affirmatively determined that each such person met the independence requirements for audit committee purposes based on the more stringent independence standards imposed by applicable Nasdaq Capital Market and SEC rules. In addition, the Board of Directors has determined that Ms. Grisewood is an “audit committee financial expert” as that term is defined in Item 407(d)(5) of Regulation S-K promulgated under the Securities and Exchange Act of 1934. In March 2004, the Audit Committee adopted a written charter which was modified in November 2015 and amended in July 2016. We believe that its Audit Committee Charter complies with the requirements related to Sarbanes-Oxley and a current copy of the Audit Committee Charter is available on our website at <http://tapimmune.com/investors/briefcase>. The Audit Committee met five times during 2017.

Compensation Committee

Our Board of Directors has established a Compensation Committee which functions pursuant to a written charter last amended by our Board of Directors in July 2016. The members of the Committee are David Laskow-Pooley, Mark Reddish and Sherry Grisewood. Mr. Laskow-Pooley serves as Chair of the Committee. The Compensation Committee met or acted by written consent once during 2017.

Nominating and Corporate Governance Committee

Our Board of Directors has established a Nominating and Corporate Governance Committee which functions pursuant to a written charter last amended by our Board of Directors in July 2016. The members of the Committee are David Laskow-Pooley, Mark Reddish and Frederick Wasserman. Mr. Wasserman serves as Chair of the Committee. The Nominating and Corporate Governance Committee met or acted by written consent once during 2017.

Role in Risk Oversight

Our board of directors oversees our stockholders’ and other stakeholders’ interest in our long-term health and overall success and financial strength. Risk is inherent with every business, and how well a business manages risk can ultimately determine its success. We face a number of risks, including economic risks, environmental and regulatory risks, and others, such as the impact of competition. Management is responsible for the day-to-day management of risks, while our board of directors, as a whole and through its committees, has the responsibility of satisfying itself that the risk management processes designed and implemented by management are adequate and functioning as designed.

Our board of directors believes that establishing the right “tone at the top” and that full and open communication between management and our board of directors are essential for effective risk management and oversight. Senior management regularly attends board meetings and is available to address any questions or concerns raised by our board on risk management-related and other matters. Our board also holds strategic planning sessions with senior management to discuss strategies, key challenges, and risks and opportunities.

While our entire board of directors is ultimately responsible for risk oversight, our board committees assist our board of directors in fulfilling its oversight responsibilities in certain areas of risk. Our audit committee assists our board in the areas of financial reporting, internal controls and compliance with legal and regulatory requirements and discusses policies with respect to risk assessment and risk management. Risk assessment reports are provided annually by management to our audit committee. Our compensation committee assists our board with respect to the management of risk arising from our compensation policies and programs. Our nominating and corporate governance committee assists our board with respect to the management of risk associated with board organization, membership and structure, succession planning for our directors and executive officers, and corporate governance.

Shareholder Nominations

Our nominating and corporate governance committee will consider candidates recommended by shareholders. To recommend director candidates, shareholders should submit their suggestions in writing to the chairman of the nominating and corporate governance committee, c/o our Secretary, providing the candidate’s name, biographical data and other relevant information, together with consent from the suggested candidate to serve on our board of directors if nominated and elected.

Code of Ethics and Business Conduct

We have adopted a Code of Ethics and Business Conduct that applies to all directors and officers. The code describes the legal, ethical and regulatory standards that must be followed by our directors and officers and sets forth high standards of business conduct applicable to each director and officer. A copy of the code can be viewed on our website at <http://tapimmune.com/investors/briefcase/>

SECTION 16(A) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

During the year ended December 31, 2017, the executive officers and directors of the Company filed with the Securities and Exchange Commission (the “Commission”) on a timely basis, all required reports relating to transactions involving equity securities of the Company beneficially owned by them. The Company has relied solely on the written representation of its executive officers and directors and copies of the reports they have filed with the Commission in providing this information.

ITEM 11. EXECUTIVE COMPENSATION

Director Compensation

Employee Directors

The Director compensation program provides that employee Directors receive no additional compensation in connection with their board service.

Non-employee directors

On March 9, 2017 the Board of Directors approved changes to the Director Compensation Program for non-employee directors which provided for the following compensation for our non-employee directors:

- An annual retainer of \$80,000, in lieu of any per board or committee meeting fees (including telephonic meetings), or committee chair fees. The annual retainer is payable as follows:
 - (i) half in cash (\$40,000) to be paid in four equal quarterly payments at the end of each calendar quarter, provided such director is still serving as a director, and
 - (ii) half (\$40,000) to be paid in restricted common stock under the 2014 Omnibus Stock Ownership Plan (the “Plan”) at the time of the Company’s annual shareholder meeting in which directors are elected, with such shares determined based on the closing price for the Company’s shares on the day preceding the annual meeting and which shall be immediately vested. To the extent any per meeting fees were paid in 2017 to our non-employee directors under the prior non-employee director compensation plan, such fees are to be deducted from the cash portion of the quarterly payments until fully accounted for.

The following components of the Director Compensation Program applicable to non-employee directors remain in place:

- An initial grant upon joining the Board of 12,500 stock options under the Plan;
- Reimbursement of reasonable expenses incurred; and
- Eligibility for Discretionary awards under the Plan.

The following table sets forth information relating to compensation earned or paid to our directors for their services as directors in the fiscal year ended December 31, 2017, and excludes compensation paid to our directors for their services as executive officers:

Director Compensation Table

Name (1)	Fees Earned or Paid in Cash	Stock Awards (2)	Option Awards (2)	All Other Compensation	Total
Glynn Wilson(3)	-	-	-	-	-
Peter Hoang(3)	-	-	-	-	-
Sherry Grisewood	\$ 40,000	\$ 40,000	-	-	\$ 80,000
David Laskow-Pooley	\$ 40,000	\$ 40,000	-	-	\$ 80,000
Mark Reddish	\$ 40,000	\$ 40,000	-	-	\$ 80,000
Joshua Silverman	\$ 40,000	\$ 40,000	-	-	\$ 80,000
Frederick Wasserman	\$ 40,000	\$ 40,000	-	-	\$ 80,000

(1) The above table excludes a former director and officer, Dr. John Bonfiglio. Dr. Bonfiglio received no compensation during 2017 as a director.

(2) As of the end of the year directors Wilson, Hoang, Grisewood, Laskow-Pooley, Reddish, Silverman and Wasserman have aggregate options to acquire 168,167, 0, 12,500, 12,500, 12,875, 12,500, 12,500 and 12,500, respectively and there are no stock awards outstanding for any non-employee director.

(3) There was no amount paid to Dr. Wilson or Mr. Hoang for their services as directors given their services to us as executive officers. See Summary Compensation Table.

Compensation Discussion and Analysis

Overview of Compensation Program

The Compensation Committee of our Board of Directors is responsible for establishing and evaluating our policies governing the compensation of our executive officers, including our named executive officers. The Compensation Committee reviews and proposes recommendations to the Board of Directors regarding the compensation to be paid to the Chief Executive Officer. In addition, the Compensation Committee reviews and approves the compensation to be paid to all other executive officers. The Compensation Committee ensures that the total compensation paid to our executive officers is fair, reasonable and competitive.

Compensation Objective

Our executive compensation programs are designed to achieve the following objectives:

- Attract and retain talented and experienced executive officers;
- Motivate and reward executive officers whose knowledge, skills, performance and business relationships are critical to our success;
- Align the interests of our executive officers and stockholders by motivating executive officers to ultimately increase stockholder value;
- Compensate our executive officers to manage our business to meet our short term and long-range goals;
- Ensure fairness among the executive officers by recognizing the contributions each executive officer makes to our success; and
- Provide a competitive compensation package which includes some pay for performance factors.

Role of Others in Compensation Decisions

The Compensation Committee makes all of the decisions with respect to the compensation received by our executive officers other than our chief executive officer which the Committee reviews and proposes recommendations to the Board of Directors. The Compensation Committee meets outside the presence of all of our executive officers to consider appropriate compensation recommendations for our chief executive officer. For all other executive officers, the Compensation Committee meets outside the presence of all executive officers except for our chief executive officer. Our chief executive officer periodically reviews each of the other executive officers' performance with the Compensation Committee and makes recommendations to the Compensation Committee with respect to any appropriate changes in base salary, bonus and grants of long-term equity incentive awards for the executive officers, excluding himself. Based in part on these recommendations and other considerations, the Compensation Committee reviews and approves such compensation arrangements of our executive officers other than our chief executive officer. The Compensation Committee also annually analyzes the chief executive officer's performance and determines his salary, annual cash bonus and grants of long-term equity incentive awards and makes recommendations to the Board of Directors. The Compensation Committee reviews and makes recommendations to the Board of Directors regarding all new equity related incentive plans for senior management.

Consideration of Stockholder Advisory Vote on Executive Compensation

The Compensation Committee also expects to consider the results of our stockholder advisory vote on executive compensation. The Board of Directors determined that stockholder advisory votes on executive compensation will be submitted to stockholders of the Company annually until the next required advisory vote on the frequency of conducting advisory votes on executive compensation.

Clawback Policy

In order to further align management's interests with those of stockholders and to support our governance practices, the Board of Directors adopted a recoupment policy applicable to annual bonuses and other short-term and long-term incentive compensation based on financial targets ("Incentive Compensation") received by current and former executive officers of the Company and such other senior executives/employees of the Company who may from time to time be deemed subject to the policy by the Board of Directors ("Covered Executive"). The policy provides that if, as a result of a restatement of our financial statements due to our material noncompliance with any financial reporting requirement under the securities laws, a Covered Executive received more Incentive Compensation than the Covered Executive would have received absent the incorrect financial statements, the Company shall recover said excess Incentive Compensation (defined as the excess of (i) the actual amount of Incentive Compensation paid to the Covered Executive over (ii) the Incentive Compensation that would have been paid based on the restated financial results during the three-year period preceding the date on which the Company is required to prepare such restatement). The policy also provides that if the Board of Directors makes a determination in its sole discretion that a Covered Executive engaged in Misconduct (as defined below), the Board of Directors may require reimbursement or forfeiture of all or part of the Incentive Compensation received by the Covered Executive. The Board of Directors may use its judgment in determining the amount to be recovered. Misconduct is defined as (i) conviction of a felony, (ii) material breach of any agreement with the Company, (iii) material breach of any Company policy or code, (iv) act of theft, embezzlement or fraud, (v) misrepresentation or misstatement of financial or performance results, and (vi) any other act or event that the Board of Directors has determined that recoupment is appropriate.

2017 Executive Compensation Components

For the fiscal year ended December 31, 2017, the principal components of compensation for our executive officers were:

- Annual base salary;
- Bonus;
- Stock Awards;
- Option Awards; and
- Other benefits.

Annual Base Salary

Base salary is designed to attract and retain experienced executive officers who can drive the achievement of our goals. While the initial base salary for our executive officers was determined by an assessment based upon the responsibilities of the position, the expected contribution of the position to our business, the experience and skill required for the position, and competition in the marketplace for the talent; the factors used in determining increases in base salary include individual performance, changes in role and/or responsibility and changes in the competitive market environment. The Compensation Committee periodically reviews the base salary for each executive officer.

Bonus

The Company awarded discretionary bonuses to the named executive officers during 2017. The Company expects to establish a bonus plan for the executive officers for 2018 and executive officers and employees may also be considered for discretionary bonuses by the Compensation Committee and recommended at the discretion of the Compensation Committee for approval by our Board of Directors.

Long-Term Equity Incentive Compensation

The Company awards long-term equity incentive awards to executive officers, including the named executive officers, as part of a total compensation package. These awards are consistent with our pay for performance principles and align the interests of the executive officers to the interests of our stockholders. The Compensation Committee reviews and approves the amount of each award to be granted to each named executive officer. Long-term equity incentive awards are made pursuant to the 2014 Omnibus Stock Ownership Plan.

Our long-term equity incentives are currently in the form of options to acquire our common stock. Stock option awards provide our executive officers with the right to purchase shares of its common stock at a fixed exercise price for a period of up to ten years under the 2014 Omnibus Stock Ownership Plan. Stock options are granted under the 2014 Omnibus Stock Ownership Plan at a price not less than the prevailing market value at the time of grant and will have realizable value only if our stock price increases. Stock options are earned on the basis of continued service to the Company and generally vest over a number of years or based upon other specific performance based criteria.

Our long-term equity incentives also can be in the form of restricted share awards of our common stock under the 2014 Omnibus Stock Ownership Plan. Restricted stock awards provide our executive officers with the shares of our common stock subject to certain restrictions and/or vesting requirements. Restricted stock shares will be earned on the basis of continued service to the Company and will vest as set forth in the separate award agreements.

The Compensation Committee determines the amount and features of the stock options and/or restricted stock, if any, to be awarded to executive officers. The Compensation Committee evaluates a number of criteria, including the past service of each such executive officer to the Company, the present and potential contributions of such executive officer to our success and such other factors as the Compensation Committee shall deem relevant in connection with accomplishing the purposes of the 2014 Omnibus Stock Ownership Plan, including the executive officer's current stock holdings, years of service, position with the Company and other factors. The Compensation Committee does not expect to apply a formula assigning specific weights to any of these factors when making its determination.

Other Benefits

Retirement Benefits. We do not currently have any retirement plan in place for our executive officers or employees.

Health and Welfare Benefits. All full-time employees, including our named executive officers, may participate in our health and welfare benefit programs, including medical, dental and vision care coverage as may be provided and applicable to all employees.

Perquisites. Because we provide limited perquisites to our executive officers, we do not believe these perquisites and other personal benefits constitute a material component of the executive officers' compensation packages.

Employment Agreements

During 2017, we had employment agreements in effect with Mr. Peter Hoang, Dr. Glynn Wilson and Mr. Michael J. Loiacono. We amended the employment agreement with Dr. Wilson to provide for a change in his role from President and Chief Executive Officer to a strategic advisor. See "Employment Agreements". We entered into employment agreements with these officers to ensure that they would perform their respective roles with the Company for an extended period of time. In addition, we also considered the critical nature of each of their positions and our need to retain them when we committed to these agreements. See "Employment Contracts and Change in Control Arrangements."

2017 Bonus Plan

On July 6, 2017, the Board of Directors approved the 2017 bonus program for Dr. Wilson and Mr. Loiacono as recommended by the Compensation Committee. Under such bonus program, Dr. Wilson and Mr. Loiacono were eligible for bonuses of up to \$102,500 and \$60,000, respectively, equaling up to 50% and 30%, of their respective base salaries (each a “Bonus Target”).

The bonuses payable to Dr. Wilson were to be based upon the achievement of the following objectives:

- (i) up to 40% of the Bonus Target for meeting scientific, technical and clinical objectives;
- (ii) up to 20% of the Bonus Target for financial performance and corporate objectives related to our raising capital; and
- (iii) up to 40% of the Bonus Target designated to be discretionary as determined by the Board.

The bonuses payable to Mr. Loiacono were to be based upon the achievement of the following objectives:

- (i) up to 33.3% of the Bonus Target for meeting corporate and operational objectives;
- (ii) up to 33.3% of the Bonus Target for financial performance objectives including related to our raising capital; and
- (iii) up to 33.3% of the Bonus Target designated to be discretionary as determined by the Board.

The bonuses were to be paid in a combination of cash and common stock at the discretion of the Compensation Committee.

Because Mr. Hoang joined the Company in September 2017, his employment agreement with us provided that any bonus for 2017 would be at the discretion of the Board.

2017 Compensation Decisions

We believe that the total compensation paid to our named executive officers for the fiscal year ended December 31, 2017 achieved the overall objectives of our executive compensation program. In accordance with our overall objectives, we believe executive compensation for 2017 was competitive with other similarly-sized companies. The Compensation Committee took the following key compensation actions in 2017:

- ***Determination of Annual Base Salaries***

The Compensation Committee did not authorize, recommend or approve any changes in the annual base salaries for any of the Company named executive officers during 2017, except Dr. Wilson’s annual base salary was reduced in connection with the amendment to his employment agreement.

- ***Determination of Equity Awards:***

During the year ended December 31, 2017, we made equity awards to certain of our named executive officers. See Summary Compensation Table.

- ***Determination of Bonuses:***

The Compensation Committee awarded discretionary bonuses for 2017 to the named executive officers pursuant to the terms of their employment agreements. The bonuses awarded to our named executive officers were paid in cash and immediately vested shares of our common stock issued under our 2014 Omnibus Stock Ownership Plan. See Summary Compensation Table below:

Summary Compensation Table

The following table sets forth the compensation earned by our executive officers for their services as executive officers during our fiscal years ended December 31, 2017 and December 31, 2016:

Summary Compensation Table							
Name and Principal Position	Year	Salary (\$)	Bonus (\$)	Stock Awards (\$)	Option Awards (\$)	All Other Compensation (\$)	Total (\$)
Peter Hoang (1) <i>CEO and Principal Executive Officer</i>	2017	90,625	11,300	795,000	-	-	896,925
Glynn Wilson (2) <i>Strategic Advisor, Former CEO and Principal Executive Officer</i>	2017	261,340	25,600	318,000	-	-	604,940
	2016	276,200	110,000	191,000	-	49,200	626,400
Michael J. Loiacono (3) <i>Chief Financial Officer, Chief Accounting Officer and Principal Accounting Officer</i>	2017	200,000	30,000	-	-	-	230,000
	2016	66,900	10,000	-	308,700	21,600	407,200

(1) Mr. Hoang became our Chief Executive Officer and President on September 22, 2017 and entered into an employment agreement with us. See "Employment Agreements". The salary for Mr. Hoang reflects the portion of the year he served us in the capacity as an officer from the time his employment became effective. The stock award represents the fair market value of an award of 250,000 shares under our 2014 Omnibus Stock Ownership Plan ("Incentive Plan") (based upon the fair value of \$3.18 per share on the date of issuance) issued to Mr. Hoang upon commencement of his employment pursuant to the terms of his employment agreement.

(2) The amount reflected as salary paid to Dr. Wilson during 2017 was paid pursuant to the terms of our employment agreement with Dr. Wilson, (as amended on September 2017) when Dr. Wilson transitioned to a strategic advisor role and Mr. Hoang became our Chief Executive Officer and President. See "Employment Agreements". At the time of the amendment, Dr. Wilson was issued 110,000 shares of common stock that vested immediately under our Incentive Plan and the amount in the table reflects the fair value of the award on the date of issuance based on \$3.18 per share.

(3) The amount reflected as salary in the table for to Mr. Loiacono during 2017 was based upon the terms of his employment agreement with us. See "Employment Agreements."

The amounts represent fees paid or accrued by us to the executive officers during the past year pursuant to various employment and consulting services agreements, as between us and the executive officers, which are described below. Our executive officers are also reimbursed for any out-of-pocket expenses incurred in connection with corporate duties. We presently have no pension, annuity, life insurance, profit sharing or similar benefit plans.

The following table sets forth information as at December 31, 2017 relating to outstanding equity awards for each named executive officer:

Outstanding Equity Awards at Year End Table(3)

Name	Number of Securities Underlying Unexercised Options (exercisable)	Number of Securities Underlying Unexercised Options (unexercisable)	Number of Securities Underlying Unexercised Unearned Options	Option Exercise Price	Option Expiration Date
Glynn Wilson	166,667	-	-	\$ 7.26	12/11/2025
<i>Strategic Advisor</i>	1,333(1)	-	-	\$ 204.00(2)	10/14/2019
	133(1)	-	-	\$ 204.00(2)	2/16/2021
Michael J. Loiacono <i>Chief Financial Officer, Chief Accounting Officer and Principal Accounting Officer</i>	27,546	26,621	-	\$ 5.70	8/25/2026

- (1) The plan under which these shares were issued was approved by the Board of Directors and the stockholders in 2009 but did not come into effect until February 22, 2010.
- (2) Effective February 16, 2011, the option exercise price was reduced to \$204.00.
- (3) Share amounts reflected in this table have been adjusted to reflect the one for twelve reverse split that occurred on September 15, 2016, unless such share awards occurred after the date of the reverse split.

Employment Agreements

Peter Hoang

The Company and Mr. Hoang entered into an Employment Agreement on September 22, 2017 pursuant to which Mr. Hoang agreed to serve as the Company's President and Chief Executive Officer and which provides that Mr. Hoang's base salary will be \$362,500 per year. The term of the agreement is for three years and will be automatically extended for an additional 12 months unless terminated by Mr. Hoang or the Company.

In connection with the execution of Mr. Hoang's employment agreement he will be granted 250,000 shares of restricted stock, all of which immediately vested under the Company's Plan. Additionally, on the first anniversary of his employment agreement, Mr. Hoang shall, subject to certain conditions, be eligible to receive a grant of stock options to purchase the number of shares equal to one percent (1%) of the then-outstanding common stock of the Company under the Plan at an exercise price equal to the fair market value of the common stock at the time of such grant, provided that certain requirements are satisfied. The options granted, if made, shall be immediately vested. In addition, on the second and third anniversaries of the employment agreement, Mr. Hoang shall, subject to certain conditions, be eligible to receive, on each such date, an additional grant of stock options to purchase the number of shares equal to one percent (1%) of the then-outstanding common stock of the Company under the Plan at an exercise price equal to the fair market value of the common stock at the time of such grant, provided that certain requirements are satisfied. These options if made, shall be subject to such further vesting conditions, including performance criteria, as mutually agreed to by Mr. Hoang and the Board.

Dr. Glynn Wilson

Dr. Glynn Wilson has been a longstanding executive of the Company and was appointed as the Company's Executive Chairman on July 1, 2009. The Company and Dr. Wilson entered into a new employment agreement on November 12, 2015, which was subsequently amended on July 18, 2016 and September 22, 2017. As a result of the most recent amendment where Dr. Wilson transitioned the role of President and Chief Executive Officer to Mr. Peter Hoang on September 22, 2017, Dr. Wilson agreed to serve as the Company's Strategic Advisor until December 31, 2018. The amended employment agreement provided that Dr. Wilson's annual base salary is \$205,000. In connection with entering into the September 22, 2017 amendment, Dr. Wilson received equity awards under our Plan consisting of an award of 100,000 shares of unregistered common stock, which immediately vested. In addition, upon the first anniversary of the execution of September 22, 2017 amendment, Dr. Wilson will be eligible to receive, subject to certain conditions, an additional grant of restricted common stock equal to \$300,000.

Michael J. Loiacono

On August 25, 2016, we entered into an Employment Agreement with Michael J. Loiacono, which provides that Mr. Loiacono's base salary will be \$200,000 per year. Pursuant to that agreement, Mr. Loiacono agreed to serve as our Chief Financial Officer and Chief Accounting Officer. The term of the agreement is for two years and will be automatically extended for an additional 12 months prior to the end of the term, or no later than ninety (90) days prior to the end of any such successive 12-month term unless terminated by Mr. Loiacono or the Company.

In connection with the execution of Mr. Loiacono's employment agreement, he was granted equity awards under the Company's Plan consisting of stock options to purchase 54,167 shares of the Company's common stock at an exercise price of \$5.70 per share equal to the fair market value of the common stock on the day immediately preceding the execution of the employment agreement, with 6,250 shares vesting immediately and the remaining shares vesting in 36 equal monthly installments of 1,331 shares on the last day of each of the 36 months following the grant date.

Similar Employment Agreement Terms of Named Executive Officers

Each of the named executive officers is eligible to receive an annual performance bonus of up to 50% of their base salary payable in immediately vested shares of common stock or cash at the Board's discretion. In addition, each of the named executive officers is eligible to participate in the Company's benefit plans, and is entitled to vacation, sick leave and reimbursement of appropriate business expenses.

If a named executive officer's employment is terminated by us for Cause (as defined in their respective employment agreements) or by a named executive officer during the term of the agreement, he will be entitled to receive his (i) then-current annual base salary through the date of termination; (ii) any reimbursable expenses for which he has not yet been reimbursed as of the date of termination; and (iii) any other rights and vested benefits (if any) provided under employee benefit plans and programs of the Company, determined in accordance with the applicable terms and provisions of such plans and programs ("Accrued Compensation").

If a named executive officer's employment is terminated by us without "Cause" or by him for "Good Reason" (as defined in their respective employment agreements), subject to his execution of a release of claims against us, and in addition to the payment of the Accrued Compensation, the Company is obligated to make payments to such named executive officer within 60 days after his termination date equal to 2/3 (in the case of Dr. Wilson), twelve months (in the case of Mr. Hoang) or six months (in the case of Mr. Loiacono) of his annual base salary, as in effect at the termination date, plus any earned but unpaid bonus (the "Additional Severance Payments").

Upon a non-renewal of Mr. Hoang's employment agreement by the Company at the end of the term, Mr. Hoang will be entitled to be paid 12 months of his annual base salary over a twelve-month period.

The employment agreements of the named executive officers also contain change of control provisions providing that if the named executive officers' employment with the Company is terminated by the Company without Cause or by them for Good Reason (in the case of Dr. Wilson, Mr. Hoang and Mr. Loiacono) during the period of ninety (90) days (in the case of Dr. Wilson and Mr. Loiacono) or six months (in the case of Mr. Hoang) following a Change in Control (as that term is defined below) of the Company, in lieu of the Additional Severance Payments described above, the named executive officers will be entitled to receive a severance payment equal to the sum of (i) 2/3 of (in the case of Dr. Wilson), eighteen (18) months of (in the case of Mr. Hoang), eight (8) months of (in the case of Mr. Loiacono) their respective annual base salary, at the higher of the base salary rate in effect on the date of termination or the base salary rate in effect immediately before the effective date of the Change of Control (in the case of Dr. Wilson, Mr. Hoang and Mr. Loiacono), and (ii) their Performance Bonus for the year which includes the effective date of the Change in Control, payable at the target level of performance, which will be paid in a single lump sum after his execution and non-revocation of the Release (in the case of Dr. Wilson, Mr. Hoang and Mr. Loiacono). In addition, they will also receive in the same payment the amount of any performance bonus that, as of the date of termination, has been earned by the named executive officers but has not yet been paid by the Company (in the case of Dr. Wilson, Mr. Hoang and Mr. Loiacono). If the named executive officers hold any stock options or other stock awards granted under the Company's 2014 Omnibus Stock Ownership Plan which are not fully vested at the time their employment with the Company is terminated by the Company without Cause during the period of ninety (90) days (in the case of Dr. Wilson, and Mr. Loiacono) or six months (in the case of Mr. Hoang) following a Change in Control, such equity awards shall become fully vested as of the termination date. For purposes of the employment agreement, the term "Change in Control" means a transaction or series of transactions which constitutes a sale of control of the Company, a change in effective control of the Company, or a sale of all or substantially all of the assets of the Company, or a transaction which qualifies as a "change in ownership" or "change in effective control" of the Company or a "change in ownership of substantially all of the assets" of the Company under the standards set forth in Treasury Regulation section 1.409A-3(i)(5) (in the case of Dr. Wilson, Mr. Hoang and Mr. Loiacono).

The named executive officer employment agreements contain customary covenants regarding confidentiality and works for hire. During their employment term and for a period of 12 months thereafter, Dr. Wilson, Mr. Hoang and Mr. Loiacono covenant not to compete with us and not to solicit any of our customers, vendors or employees.

Dr. Wilson, Mr. Hoang's and Mr. Loiacono's employment agreements also provide that each of the payments and benefits under the agreements are subject to compliance with Section 409A of the Code and it includes time of payment language intended to comply with Section 409A requirements.

The foregoing summary of the employment agreements of our named executive officers is qualified in its entirety by the specific terms of the employment agreements of the named executive officers previously filed with the SEC which are incorporated herein by reference.

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

The following table sets forth, as of the date of this annual report, certain information regarding the ownership of our common stock by (i) each person known by us to be the beneficial owner of more than 5% of our outstanding shares of common stock, (ii) each of our directors, (iii) our Chief Executive Officer and (iv) all of our directors and our Chief Executive Officer as a group. Unless otherwise indicated, the address of each person shown is c/o TapImmune Inc., 5 W. Forsyth Street, Suite 200, Jacksonville, Florida 32202. Beneficial ownership, for purposes of this table, includes options and warrants to purchase common stock that are either currently exercisable or will be exercisable within 60 days of the date of this annual report.

Name and Address of Beneficial Owner	Amount and Nature of Beneficial Ownership(1)	Percent of Class
Directors and Officers:		
Dr. Glynn Wilson, Chairman (2)	326,350	3.0%
Peter L Hoang, Chief Executive Officer, President and Director (2)	179,711	1.7%
Mark Reddish, Director (4)	44,879	*
Sherry Grisewood, Director (5)	27,976	*
David Laskow-Pooley, Director (6)	25,615	*
Frederick Wasserman, Director (7)	25,615	*
Joshua Silverman, Director (8)	395,036	3.6%
Michael J. Loiacono, Chief Financial Officer (9)	38,195	*
All executive officers and directors as a group (8 persons)	1,063,377	9.5%
5% Stockholders:		
Eastern Capital Limited (10) 10 Market St. #773 Camana Bay, Grand Cayman KY1-1206 Cayman Islands	4,000,002	32.6%
Brio Capital Master Fund Ltd. (11) 100 Merrick Road, Suite 401 W. Rockville Center, NY 11570	798,044	7.3%
Iroquois Capital Management L.L.C. (12) (14) 205 East 42nd St., 20 th Floor New York, NY 10017	851,110	5.5%
Richard Abbe (13) (14) 205 East 42nd St., 20 th Floor New York, NY 10017	1,130,836	7.3%

* Less than one percent (1%)

(1) Under Rule 13d-3, a beneficial owner of a security includes any person who, directly or indirectly, through any contract, arrangement, understanding, relationship, or otherwise has or shares: (i) voting power, which includes the power to vote, or to direct the voting of shares; and (ii) investment power, which includes the power to dispose or direct the disposition of shares. Certain shares may be deemed to be beneficially owned by more than one person (if, for example, persons share the power to vote or the power to dispose of the shares). In addition, shares are deemed to be beneficially owned by a person if the person has the right to acquire the shares (for example, upon exercise of an option) within 60 days of the date as of which the information is provided. In computing the percentage ownership of any person, the amount of shares outstanding is deemed to include the amount of shares beneficially owned by such person (and only such person) by reason of these acquisition rights. As a result, the percentage of outstanding shares of any person as shown in this table does not necessarily reflect the person's actual ownership or voting power with respect to the number of shares of common stock actually outstanding as of the date of this annual report. As of March 16, 2018, there were 10,626,140 shares of common stock issued and outstanding.

- (2) This figure includes 158,217 shares directly owned by Dr. Wilson, and 168,133 shares subject to stock options exercisable through July 2018.
- (3) This figure includes 179,711 shares directly owned by Mr. Hoang.
- (4) This figure includes 32,004 shares directly owned by Mr. Reddish and 12,875 shares subject to currently exercisable stock options exercisable through July 2018 awarded pursuant to the director compensation program.
- (5) This figure includes 15,476 shares directly owned by Ms. Grisewood and 12,500 shares subject to stock options exercisable through July 2018 awarded pursuant to the director compensation program.
- (6) This figure includes 13,115 shares directly owned by Mr. Laskow-Pooley and 12,500 shares subject to stock options exercisable through July 2018 awarded pursuant to the director compensation program.
- (7) This figure includes 13,115 shares directly owned by Mr. Wasserman and 12,500 shares subject to stock options exercisable through July 2018 awarded pursuant to the director compensation program.
- (8) This figure includes 13,115 shares directly owned by Mr. Silverman and 10,420 shares subject to stock options exercisable through July 2018 awarded pursuant to the director compensation program. In addition, includes 153,333 shares and currently exercisable warrants to acquire 218,168 shares held indirectly by Mr. Silverman through JNS Holdings Group, LLC
- (9) This figure includes 38,195 shares subject to currently exercisable stock options owned by Mr. Loiacono and excludes 15,972 shares subject to options that have not yet vested.
- (10) All information is based upon the Schedule 13D jointly filed with the Securities and Exchange Commission by Eastern Capital Limited, Portfolio Services LTD. and Kenneth B. Dart, on August 25, 2017. Eastern Capital Limited beneficially owns 2,333,334 shares of common stock and 1,666,668 shares of common stock issuable upon exercise of the Series A-1 Warrants, Series D-1 Warrants, Series E-1 Warrants and Series F-1 Warrants. Eastern Capital Limited has shared voting and dispositive power of the shares it beneficially owns with its parent, Portfolio Services Ltd. and Kenneth B. Dart. All warrants are subject to a limit of exercise to the extent (and only to the extent) that Eastern Capital Limited or any of its affiliates would beneficially own in excess of 49.9% of the common stock after giving effect to such exercise.
- (11) All information is based upon the Schedule 13G filed with the Securities and Exchange Commission by Brio Capital Master Fund Ltd. on January 26, 2018. Brio Capital Management LLC, is the investment manager of Brio Capital Master Fund Ltd. and has the voting and investment discretion over securities held by the Brio Capital Fund Ltd. Shaye Hirsch, in his capacity as Managing Member of Brio Capital Management LLC, makes voting and investment decisions on behalf of Brio Capital Management LLC in its capacity as the investment manager of Brio Capital Master Fund Ltd. Includes shares able to be acquired from all Series C and F Warrants (391,688 shares) but excludes shares able to be acquired from Series D and Series E Warrants (332,705 shares) due to blocker provisions. The Series C Warrants and Series F Warrants are subject to a limit of exercise to the extent (and only to the extent) that Brio Capital Master Fund Ltd. or any of its affiliates would beneficially own in excess of 9.9% of the common stock after giving effect to such exercise. The Series D Warrants and Series E Warrants are subject to a limit of exercise to the extent (and only to the extent) that Brio Capital Master Fund Ltd. or any of its affiliates would beneficially own in excess of 4.9% of the common stock after giving effect to such exercise.

(12) Information is based upon the Schedule 13G jointly filed with the Securities and Exchange Commission by Iroquois Capital Management L.L.C. (“Iroquois”), Richard Abbe and Kimberly Page on February 14, 2018 and information provided from Iroquois. Includes 382,754 shares of common stock and warrants to purchase 468,356 shares of common stock (260,024 shares pursuant to Series A Warrants (104,167), Series D Warrants (104,168) and Series E Warrants (51,689), and 208,332 shares pursuant to Series C Warrants (109,999) and Series F Warrants (98,333)) held by Iroquois Master Fund Ltd. (the “Fund”). Mr. Abbe shares authority and responsibility for the investments made on behalf of the Fund with Ms. Page, each of whom is a director of the Fund. Iroquois is the investment manager for the Fund and Mr. Abbe is the President of Iroquois.

(13) Information is based upon the Schedule 13G jointly filed with the Securities and Exchange Commission by Iroquois Capital Management L.L.C. (“Iroquois”), Richard Abbe and Kimberly Page on February 14, 2018 and information provided from Iroquois. Includes the information in footnote 12 above and includes 48,775 shares of common stock and warrants to purchase 59,416 shares of common stock beneficially owned indirectly by Mr. Abbe (by Kensington Investment Group LLC). In addition, each of The Samantha Abbe Irrevocable Trust, The Talia Abbe Irrevocable Trust and The Bennett Abbe Irrevocable Trust held 25,956, 25,954 and 25,954 shares of common stock, respectively, and warrants to purchase 31,225, 31,223 and 31,223 shares of common stock, respectively, consisting of Series A, C, D, E and F warrants. In addition, by virtue of his position as a custodian or trustee of certain Accounts (The Samantha Abbe Irrevocable Trust, The Talia Abbe Irrevocable Trust and The Bennett Abbe Irrevocable Trust), Mr. Abbe may be deemed to be the beneficial owner of the shares of common stock held by, and underlying the warrants (subject to applicable blockers) held by, such Accounts. Mr. Abbe hereby disclaims any beneficial ownership of any such shares of common stock except to the extent of his pecuniary interest therein.

(14) The Series A Warrants, Series D Warrants and Series E Warrants held by the Fund and those held by Richard Abbe and the Accounts are subject to a limit of exercise to the extent (and only to the extent) that Iroquois or any of its affiliates, or Richard Abbe or any of his affiliates, respectively, would beneficially own in excess of 4.9% of the common stock after giving effect to such exercise. The Series C and Series F Warrants are subject to a limit of exercise to the extent (and only to the extent) that Iroquois or any of its affiliates, or Mr. Abbe or any of his affiliates, respectively, would beneficially own in excess of 9.9% of the common stock after giving effect to such exercise. The percentages reflected in the table give effect to the applicable blockers.

There are no arrangements or understanding among the parties set out above or their respective associates or affiliates concerning election of directors or any other matters which may require stockholder approval.

Changes in Control

Other than the changes in stock ownership by our major stockholders who hold warrants to acquire additional shares of our common stock (as reflected in the footnotes to the table above), we are unaware of any contract, or other arrangement or provision, the operation of which may at a subsequent date result in a change of control of our Company.

Equity Compensation Plan Information

The following table summarizes the equity compensation plans under which our equity securities may be issued as of December 31, 2017:

	(a) Number of Securities to be Issued Upon Exercise of Options	(b) Weighted Average Exercise Price of Outstanding Options	(c) Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column (a))
Equity compensation plans approved by stockholders:			
2014 Omnibus Stock Option Plan ⁽¹⁾	536,200	\$ 7.28	837,500
Equity compensation plans not approved by stockholders ⁽²⁾	-	-	-
Totals	<u>536,200</u>	<u>\$ 7.28</u>	<u>837,500</u>

⁽¹⁾ Our 2014 Omnibus Stock Option Plan was approved by our shareholders at the 2017 annual meeting held on August 29, 2017.

⁽²⁾ We do not have any equity compensation plans not approved by shareholders.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE

SEC rules require us to disclose any transaction or currently proposed transaction in which we are a participant and in which any related person has or will have a direct or indirect material interest involving an amount that exceeds the lesser of \$120,000 or one percent (1%) of the average of the Company's total assets as of the end of last two completed fiscal years. A related person is any executive officer, director, nominee for director, or holder of 5% or more of the Company's common stock, or an immediate family member of any of those persons.

Review and Approval of Related Person Transactions

In order to ensure that material transactions and relationships involving a potential conflict of interest for any of our executive officers or directors are in our best interests, under the Code of Ethics and Business Conduct ("Code of Ethics") adopted by the Board of Directors for all of our employees and directors, all such conflicts of interest are required to be reported to the Audit Committee of the Board of Directors, and the approval of the Audit Committee must be obtained in advance for us to enter into any such transaction or relationship. Pursuant to the Code of Ethics, none of our officers or employees may, on our behalf, authorize or approve any transaction or relationship, or enter into any agreement, in which such officer, director or any member of his or her immediate family, may have a personal interest without such Audit Committee approval. Further, none of our officers or employees may, on our behalf, authorize or approve any transaction or relationship, or enter into any agreement, if they are aware that one of our executive officers or directors, or any member of any such person's family, may have a personal interest in such transaction or relationship, without such Audit Committee approval.

Our Audit Committee reviews all conflict of interest transactions involving our executive officers and directors, pursuant to its charter.

In the course of their review of a related party transaction, the Audit Committee considers:

- the nature of the related person's interest in the transaction;
- the material terms of the transaction, including, without limitation, the amount and type of transaction;
- the importance of the transaction to us;
- the importance of the transaction to the related person;
- whether the transaction would impair the judgment of the director or executive officer to act in our best interests; and
- any other matters the Audit Committee deems appropriate.

Any member of the Audit Committee who has a conflict of interest with respect to a transaction under review may not participate in the deliberations or vote respecting approval of the transaction, provided, however, that such director may be counted in determining the presence of a quorum.

Institutional Investor-Transactions

The Company has several institutional investors, who currently beneficially own in excess of five percent (5%) of our current outstanding stock. The institutional investors have participated in Company Financings in 2016 and 2017 as follows:

2016 Private Placement-Warrant Exercise-Warrant Restructuring.

2016 Private Placement

In August 2016, the Company completed a private placement of units with certain accredited investors. The units consisted of (i) one share of the Company's common stock, par value \$0.001 per share and (ii) one five-year warrant to purchase one share of Company common stock for \$6.00. The Company issued and sold an aggregate of 520,833 Units at a purchase price per Unit of \$4.80 for an aggregate of \$2.5 million.

Warrant Exercises

Simultaneously with the closing of the 2016 private placement, holders of an aggregate of 583,333 outstanding Series C Warrants and 416,666 Series C-1 Warrants, each providing for the purchase of one share of Company common stock for \$6.00 per share, entered into binding commitments to exercise their warrants for an aggregate exercise price of \$6.0 million.

Warrant Restructuring

Simultaneous with the closing of the 2016 private placement, the Company and holders of an aggregate of 3,096,665 outstanding Series A Warrants, Series A-1 Warrants, Series C Warrants, Series C-1 Warrants, Series D Warrants, Series D-1 Warrants, Series E Warrants and Series E-1 Warrants entered into Warrant Amendment Agreements, in which they agreed to amend the terms of the Outstanding Series Warrants to remove provisions from the Outstanding Series Warrants that had previously caused them to be classified as a derivative liability as opposed to equity. In consideration for such amendment and the exercise of the Series C Warrants and Series C-1 Warrants, the Company issued an aggregate of 750,000 additional shares of common stock to such warrant holders and new five-year warrants to purchase 1,000,000 shares of Company common stock at an exercise price of \$7.20 per share (the "Series F Warrants").

2017 Private Placement- Warrant Exercises and Repricings

Private Placement Transaction

In June 2017, the Company entered into subscription agreements (the "Subscription Agreements") with certain accredited investors relating to a private placement of units (the "2017 Private Placement"). In the private placement transaction, the Company issued 1,503,491 shares of common stock for \$3.97 per share and issued five-year warrants to purchase an equal number of shares of common stock, at an exercise price of \$3.97 per share, for \$0.125 per PIPE Warrant, with one common share and one PIPE Warrant being sold together as a unit for a total of \$4.095 per Unit.

In connection with the 2017 Private Placement, the Company agreed that investors who purchase Units in the 2017 private placement and who also purchased units in the private placement that closed in August 2016 (which units included warrants to purchase common stock at \$6.00 per share) could have the exercise price for their warrants issued in that transaction reduced from \$6.00 per share to \$3.97 per share upon payment to the Company of \$0.125 for each share subject to the investor's 2016 warrant. Investors in the Private Placement paid such amount with respect to their 2016 warrants to purchase an aggregate of 265,573 shares of common stock. The warrants to purchase an aggregate of 387,614 shares of common stock that were issued to all of the other investors in the 2016 private placement transaction (those who did not participate in the 2017 Private Placement) had the exercise price reduced from \$6.00 per share to \$3.97 per share without the payment of any additional consideration.

Exercise and Repricing of Warrants Held by Existing Institutional Investors

In June 2017, certain existing institutional shareholders of the Company who hold various outstanding warrants to purchase Company common stock, entered into Warrant Exercise Agreements, in which the Company agreed to reduce the exercise price for a portion of the investors' existing Series E warrants from \$15.00 per share to \$3.97 per share, provided that the investors exercise such portion of the warrants immediately. Pursuant to the Warrant Exercise Agreements, such warrant holders agreed to exercise Series E warrants to purchase an aggregate of 167,926 shares of Company common stock for aggregate gross proceeds of approximately \$666,666, with the exercise price for 75% of the remainder of the investors' Series E warrants to purchase 186,555 shares of Company common stock being reduced from \$15.00 per share to \$4.50 per share. The remaining 25% of such investors' Series E warrants to purchase an aggregate of 62,185 shares of Company common stock retained their current exercise price. Additionally, the exercise prices for 75% of such investors' Series C, Series D and Series F warrants were reduced to \$4.00 per share from their current exercise prices of: \$6.00 per share for Series C warrants (for 313,750 shares out of a total of 418,333 shares subject to their Series C warrants); \$9.00 per share for Series D warrants (for 312,500 shares out of a total of 416,666 shares subject to their Series D warrants); and \$7.20 per share for Series F warrants (for 292,500 shares out of a total of 390,000 shares subject to their Series F warrants). The remainder of the investors' Series C, Series D and Series F warrants retained their current exercise prices.

Promissory Note-Officer

The Company had an outstanding promissory note in the amount of \$23,000 owed to Dr. Glynn Wilson, currently strategic advisor and Chairman of the Company. The promissory note bore no interest charges and had no fixed repayment terms. During the year ended December 31, 2016, the note was paid in full.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

Marcum LLP served as our independent registered public accounting firm and audited our financial statements for the fiscal years ended December 31, 2017 and December 31, 2016. Aggregate fees for professional services rendered to us by our auditor are set forth below:

	<u>Year Ended December 31, 2017</u>	<u>Year Ended December 31, 2016</u>
Audit Fees	\$ 114,000	\$ 194,800
Audit Related Fees	-	-
Tax Fees	18,000	68,300
All Other Fees	-	-
	<u>\$ 132,000</u>	<u>\$ 263,100</u>

Audit Fees

Audit fees are the aggregate fees billed for professional services rendered by our independent auditors for the audit of our annual financial statements, the review of the financial statements included in each of our quarterly reports and services provided in connection with statutory and regulatory filings or engagements.

Audit Related Fees

Audit related fees are the aggregate fees billed by our independent auditors for assurance and related services that are reasonably related to the performance of the audit or review of our financial statements and are not described in the preceding category.

Tax Fees

Tax fees are billed by our independent auditors for tax compliance, tax advice and tax planning.

All Other Fees

All other fees include fees billed by our independent auditors for products or services other than as described in the immediately preceding three categories.

Policy on Pre-Approval of Services Performed by Independent Auditors

It is our Audit Committee's policy to pre-approve all audit and permissible non-audit services performed by the independent auditors. The Audit Committee approved all services that our independent accountants provided to us in the past two fiscal years.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) The documents filed as part of this report are as follows:

1. The financial statements and accompanying report of independent registered public accounting firm are set forth immediately following the signature page of this report on pages F-1 through F-24.

2. All financial statement schedules are omitted because they are inapplicable, not required or the information is included elsewhere in the financial statements or the notes thereto.

3. The exhibits required to be filed by this report or able to be incorporated by reference are listed in the "Exhibit Index" following the financial statements.

(b) Other Exhibits

Exhibits required by Item 601 of Regulation S-K are submitted (or incorporated by reference) and listed in a separate section herein immediately following the "Exhibit Index" and are incorporated herein by reference.

(c) Not Applicable.

ITEM 16. FORM 10-K SUMMARY

None.

SIGNATURES

Pursuant to the requirements of Section 13 and 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.

Dated: March 23, 2018

TapImmune Inc.

By: /s/ Peter Hoang
Peter Hoang
Chief Executive Officer (Principal Executive Officer)

By: /s/ Michael J. Loiacono
Michael J. Loiacono
Chief Financial Officer (Principal Accounting Officer)

POWER OF ATTORNEY

Each of the undersigned officers and directors of TapImmune Inc., hereby constitutes and appoints Peter Hoang and Michael J. Loiacono, their true and lawful attorney-in-fact and agent, for them and in their name, place and stead, in any and all capacities, to sign their name to any and all amendments to this Report on Form 10-K, and other related documents, and to cause the same to be filed with the Securities and Exchange Commission, granting unto said attorneys, full power and authority to do and perform any act and thing necessary and proper to be done in the premises, as fully to all intents and purposes as the undersigned could do if personally present, and the undersigned for himself hereby ratifies and confirms all that said attorney shall lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on March 23, 2018 on behalf of the registrant and in the capacities indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Peter Hoang</u> Peter Hoang	President, Chief Executive Officer and Director	March 23, 2018
<u>/s/ Sherry Grisewood</u> Sherry Grisewood	Director	March 23, 2018
<u>/s/ Glynn Wilson</u> Dr. Glynn Wilson	Director	March 23, 2018
<u>/s/ David Laskow-Pooley</u> David Laskow-Pooley	Director	March 23, 2018
<u>/s/ Mark Reddish</u> Mark Reddish	Director	March 23, 2018
<u>/s/ Frederick Wasserman</u> Frederick Wasserman	Director	March 23, 2018
<u>/s/ Joshua Silverman</u> Joshua Silverman	Director	March 23, 2018
<u>/s/ Michael J. Loiacono</u> Michael J. Loiacono	Chief Financial Officer	March 23, 2018

**TAPIMMUNE INC.
CONSOLIDATED FINANCIAL STATEMENTS**

DECEMBER 31, 2017

<u>Report of Independent Registered Public Accounting Firm</u>	<u>F-2</u>
<u>Consolidated Balance Sheets</u>	<u>F-3</u>
<u>Consolidated Statements of Operations</u>	<u>F-4</u>
<u>Consolidated Statement of Stockholders' Equity (Deficit)</u>	<u>F-5</u>
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<u>Notes to the Consolidated Financial Statements</u>	<u>F-8</u>

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and Board of Directors of
TapImmune, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of TapImmune, Inc. (the "Company") as of December 31, 2017 and 2016, the related consolidated statements of operations, stockholders' equity (deficit) and cash flows for each of the two years in the period ended December 31, 2017, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2017 and 2016, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2017, in conformity with accounting principles generally accepted in the United States of America.

Explanatory Paragraph – Going Concern

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As more fully described in Note 2, the Company has a significant working capital deficiency, has incurred significant losses and needs to raise additional funds to meet its obligations and sustain its operations. These conditions raise substantial doubt about the Company's ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 2. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Marcum LLP

/s/ Marcum LLP

We have served as the Company's auditor since 2014.

New York, NY
March 23, 2018

TAPIMMUNE INC.
CONSOLIDATED BALANCE SHEETS

	December 31, 2017	December 31, 2016
ASSETS		
Current assets:		
Cash	\$ 5,129,289	\$ 7,851,243
Prepaid expenses and deposits	51,150	70,149
Total current assets	<u>5,180,439</u>	<u>7,921,392</u>
Total assets	<u>\$ 5,180,439</u>	<u>\$ 7,921,392</u>
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable and accrued liabilities	\$ 1,508,312	\$ 1,224,940
Research agreement obligations	-	492,365
Warrant liability	9,000	14,500
Promissory note	5,000	5,000
Total current liabilities	<u>1,522,312</u>	<u>1,736,805</u>
Total liabilities	<u>1,522,312</u>	<u>1,736,805</u>
COMMITMENTS AND CONTINGENCIES		
Stockholders' equity:		
Preferred stock - \$0.001 par value, 5 million shares authorized at December 31, 2017 and 2016, respectively		
Series A, \$0.001 par value, 1.25 million shares designated, 0 shares issued and outstanding as of December 31, 2017 and 2016, respectively	-	-
Series B, \$0.001 par value, 1.5 million shares designated, 0 shares issued and outstanding as of December 31, 2017 and 2016, respectively	-	-
Common stock, \$0.001 par value, 41.7 million shares authorized, 10.6 million and 8.4 million shares issued and outstanding as of December 31, 2017 and 2016, respectively	10,616	8,421
Additional paid-in capital	161,067,538	151,991,974
Accumulated deficit	(157,420,027)	(145,815,808)
Total stockholders' equity	<u>3,658,127</u>	<u>6,184,587</u>
Total liabilities and stockholders' equity	<u>\$ 5,180,439</u>	<u>\$ 7,921,392</u>

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

TAPIMMUNE INC.
CONSOLIDATED STATEMENTS OF OPERATIONS

	For the Years Ended	
	December 31,	
	<u>2017</u>	<u>2016</u>
Operating expenses:		
Research and development	\$ 5,250,985	\$ 3,800,035
General and administrative	6,412,121	4,692,234
Total operating expenses	<u>11,663,106</u>	<u>8,492,269</u>
Loss from operations	(11,663,106)	(8,492,269)
Other income (expense):		
Change in fair value of warrant liabilities	5,500	5,939,500
Debt extinguishment gain	492,365	-
Grant income	183,064	231,200
Loss on debt settlement agreements	-	(135,640)
Other income	-	1,828
Net loss	<u>\$ (10,982,177)</u>	<u>\$ (2,455,381)</u>
Basic net loss per share	<u>\$ (1.16)</u>	<u>\$ (0.36)</u>
Diluted net loss per share	<u>\$ (1.16)</u>	<u>\$ (0.72)</u>
Weighted average number of common shares outstanding, basic	<u>9,453,483</u>	<u>6,889,898</u>
Weighted average number of common shares outstanding, diluted	<u>9,453,483</u>	<u>7,420,995</u>

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

TAPIMMUNE INC.
CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY (DEFICIT)

	Common Stock		Additional Paid- in Capital	Accumulated Deficit	Total Stockholders' Equity
	Shares	Par value			
Balance at January 1, 2016	5,882,976	5,884	112,142,187	(133,508,427)	(21,360,356)
Private placement (net of offering cost)	653,166	653	2,330,473	-	2,331,126
Fair value of shares issued as inducement on August 10, 2016	750,000	750	4,499,250	(4,500,000)	-
Fair value of series F and F-1 warrants issued as inducement in August 2016	-	-	5,352,000	(5,352,000)	-
Reclassification of fair value of derivative liabilities to equity on amendment of warrant agreements	-	-	15,465,000	-	15,465,000
Exercise of warrants (net of offering cost)	1,000,000	1,000	5,482,349	-	5,483,349
Reclassification of fair value of derivative liabilities at exercise date	-	-	5,074,000	-	5,074,000
Exercise of stock options	10,417	10	18,115	-	18,125
Shares issued in debt settlement agreements	10,191	10	70,305	-	70,315
Stock-based compensation	114,435	114	1,558,295	-	1,558,409
Net loss	-	-	-	(2,455,381)	(2,455,381)
Balance, December 31, 2016	8,421,185	8,421	151,991,974	(145,815,808)	6,184,587
Common stock and warrants issued in private placement	1,503,567	1,504	6,188,499	-	6,190,003
Fees and legal costs relating to private placement	-	-	(781,660)	-	(781,660)
Exercise of warrants	167,926	168	666,498	-	666,666
Legal costs relating to exercise of warrants	-	-	(47,043)	-	(47,043)
Fair value of repriced warrants as inducement	-	-	622,042	(622,042)	-
Stock-based compensation	620,685	621	2,737,623	-	2,738,244
Repurchase of common stock to pay for employee withholding taxes	(97,639)	(98)	(310,395)	-	(310,493)
Net loss	-	-	-	(10,982,177)	(10,982,177)
Balance, December 31, 2017	10,615,724	\$ 10,616	\$ 161,067,538	\$ (157,420,027)	\$ 3,658,127

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

TAPIMMUNE INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS

	For the Years Ended	
	December 31,	
	2017	2016
Cash Flows from Operating Activities:		
Net loss	\$ (10,982,177)	\$ (2,455,381)
Reconciliation of net loss to net cash used in operating activities:		
Changes in fair value of warrant liabilities	(5,500)	(5,939,500)
Shares issued in debt settlement agreements	-	70,315
Stock-based compensation	2,738,244	1,558,409
Debt extinguishment gain	(492,365)	-
Changes in operating assets and liabilities:		
Prepaid expenses and deposits	18,999	(1,346)
Accounts payable and accrued expenses	283,372	257,582
Net cash used in operating activities	<u>(8,439,427)</u>	<u>(6,509,921)</u>
Cash Flows from Financing Activities:		
Proceeds from issuance of common stock and warrants in private placement, net of offering costs	5,408,343	2,331,126
Proceeds from exercise of stock warrants, net of offering costs	619,623	5,483,349
Proceeds from exercise of stock options	-	18,125
Repayment of promissory note	-	(25,000)
Repayment of promissory note - related party	-	(23,000)
Repurchase of common stock to pay for employee withholding taxes	(310,493)	-
Net cash provided by financing activities	<u>5,717,473</u>	<u>7,784,600</u>
Net (decrease) increase in cash	(2,721,954)	1,274,679
Cash at beginning of period	7,851,243	6,576,564
Cash at end of period	<u>\$ 5,129,289</u>	<u>\$ 7,851,243</u>

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

TAPIMMUNE INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS

**For the Years Ended
December 31,**

	2017	2016
Supplemental schedule of non-cash financing activities:		
Fair value of repriced warrants as inducement	\$ 622,042	\$ -
Reclassification of accrued liability upon issuance of common shares relating to Dr. Glynn Wilson's compensation	\$ -	\$ 191,000
Fair value of issuance of series F and F-1 warrants as inducement in August 2016	\$ -	\$ 5,352,000
Fair value of shares issued as inducement on August 10, 2016	\$ -	\$ 4,500,000
Reclassification of fair value of derivative liabilities to equity on amendment of warrant agreements	\$ -	\$ 15,465,000
Reclassification of Derivative Warrant Liabilities to Equity at Exercise Date	\$ -	\$ 5,074,000

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

TAPIMMUNE INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2017

NOTE 1: NATURE OF OPERATIONS

TapImmune Inc. (the "Company"), a Nevada corporation incorporated in 1991, is a biotechnology company focusing on immunotherapy specializing in the development of innovative peptide and gene-based immunotherapeutics and vaccines for the treatment of oncology and infectious disease. Unlike other vaccine technologies that narrowly address the initiation of an immune response, TapImmune's approach broadly stimulates the cellular immune system by enhancing the function of killer T-cells (CD8+) and T-helper (CD4+) cells and by restoring antigen presentation in tumor cells allowing their recognition and killing by the immune system.

A Phase I study at the Mayo Clinic, Rochester, MN, evaluating the safety and immune responses of a set of proprietary HER2/neu+ antigens has been successfully completed and the results led to the decision to proceed with Phase II clinical studies in 2017.

A separate Phase I study has also been conducted at Mayo Foundation ("Mayo") in ovarian and breast cancer (Folate Receptor Alpha). Folate Receptor Alpha is expressed in nearly 50% of breast cancers and in addition, over 95% of ovarian cancers, for which the only treatment options are surgery and chemotherapy, leaving a very important and urgent clinical need for a new therapeutic. Time to recurrence is relatively short for this type of cancer and survival prognosis is extremely poor after recurrence. In the USA alone, there are approximately 30,000 ovarian cancer patients newly diagnosed every year. These Folate Receptor Antigens are applicable to ovarian and triple-negative breast cancer. Both of these diseases have few treatment options if any beyond surgery and chemotherapy and therefore the Company is hopeful that it might be an ideal candidate for orphan drug status in these indications. This study has been successfully completed and the results led to the decision to proceed with multiple Phase II studies in 2017.

In addition, enhancing the visibility of cancer or infected cells to a patient's immune system is a critical aspect of an effective vaccine. In this regard, TapImmune's PolyStart™ nucleic acid-based technology provides a four-fold increase in target cell specific naturally processed antigenic epitopes on a cells surface. This increased cell surface presentation corresponding increases activated Helper and/or long-lived Killer T-cell populations that then effectively seek out and work to destroy a patient's cancer cells.

NOTE 2: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation

These financial statements are presented in United States dollars and have been prepared in accordance with accounting principles generally accepted in the United States of America ("GAAP").

Principles of Consolidation

These financial statements include the accounts of the Company and its wholly-owned and dormant subsidiary GeneMax Pharmaceuticals Inc. All significant intercompany balances and transactions are eliminated upon consolidation.

Use of Estimates

Preparation of the Company's financial statements in conformity with GAAP requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ materially from those estimates. Significant areas requiring management's estimates and assumptions include valuation allowance on deferred tax assets, determining the fair value of stock-based compensation and stock-based transactions, the fair value of the components of the warrant liabilities and accrued liabilities.

Liquidity, financial condition and managements plans

These consolidated financial statements have been prepared on the basis of a going concern which contemplates the realization of assets and the satisfaction of liabilities in the normal course of business. As at December 31, 2017, the Company had cash balances of approximately \$5.1 million. Historically, the Company has incurred significant losses in the development of its business. The ability of the Company to continue as a going concern is dependent on raising additional capital to fund current clinical trials, ongoing research and development, maintenance and protection of patents and ultimately on generating future profitable operations. Planned expenditures relating to current and future clinical trials of the Company's immunotherapy vaccine will require significant additional funding. The Company is dependent on future financings to fund ongoing research and development as well as working capital requirements. The Company's future capital requirements will depend on many factors including the rate and extent of scientific progress in its research and development programs, the timing, cost and scope involved in clinical trials, obtaining regulatory approvals, pursuing further patent protections and the timing and costs of commercialization activities.

Management is addressing going concern through seeking new sources of capital and is continuing initiatives to raise capital through private placements, related party loans and other institutional sources to meet future working capital requirements. We have no sources of revenue to provide incoming cash flows to sustain our future operations. Our ability to pursue our planned business activities is dependent upon our successful efforts to raise additional capital. These factors raise substantial doubt regarding our ability to continue as a going concern.

Historically, the Company has raised capital through issuances of various financial instruments and during 2016, the Company completed significant restructuring of outstanding debt and equity instruments into equity. Additional capital is required to expand programs including pre-clinical work and to progress clinical trials for the lead vaccine candidates. Strategic partnerships will be needed to continue the product development portfolio and fund development costs. These measures, if successful, may contribute to reduce the risk of going concern uncertainties for the Company beyond the next twelve months.

There is no certainty that the Company will be able to arrange sufficient funding to continue development of products to marketability.

Fair Value Measurements

The Company follows Accounting Standards Codification ("ASC") 820, "Fair Value Measurements and Disclosures," ("ASC 820") for the Company's financial assets and liabilities that are re-measured and reported at fair value at each reporting period, and are re-measured and reported at fair value at least annually using a fair value hierarchy that is broken down into three levels. Level inputs are defined as follows:

- Level 1 - Quoted prices (unadjusted) in active markets for identical assets and liabilities.
- Level 2 - Inputs other than Level 1 that are observable, either directly or indirectly, such as unadjusted quoted prices for similar assets and liabilities, unadjusted quoted prices in the markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.
- Level 3 - Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities. Financial Instruments and Concentration of Credit Risk.

Patents and Patent Application Costs

Although the Company believes that its patents and underlying technology have continuing value, the amount of future benefits to be derived from the patents is uncertain. Patent costs are, therefore, expensed as incurred.

Stock-Based Compensation

The Company incurs stock-based compensation expense related to restricted stock units and stock options. The fair value of restricted stock is determined by the closing market price of the Company's common stock on the date of grant. The Company estimates the fair value of stock options granted using the Black-Scholes option pricing model. The Black-Scholes option pricing model was developed for use in estimating the fair value of traded options, which have no vesting restrictions and are fully transferable. In addition, option valuation models require the input of highly subjective assumptions, including the expected stock price volatility and expected option life. The Company amortizes the fair value of the awards expected to vest on a straight-line basis over the requisite service period of the awards. Expected volatility is based on historical volatility. The expected life of options granted is based on historical expected life. The risk-free interest rate is based on the U.S. Treasury yield in effect at the time of grant. The forfeiture rate is based on historical data, and the Company records stock-based compensation expense only for those awards that are expected to vest. The dividend yield is based on the fact that no dividends have been paid historically and none are currently expected to be paid in the foreseeable future:

Expected Term — The expected term of options represents the period that the Company’s stock-based awards are expected to be outstanding based on the simplified method, which is the half-life from vesting to the end of its contractual term.

Expected Volatility — The Company computes stock price volatility over expected terms based on its historical common stock trading prices.

Risk-Free Interest Rate — The Company bases the risk-free interest rate on the implied yield available on U. S. Treasury zero-coupon issues with an equivalent remaining term.

Expected Dividend — The Company has never declared or paid any cash dividends on its common shares and does not plan to pay cash dividends in the foreseeable future, and, therefore, uses an expected dividend yield of zero in its valuation models. The Company recognizes fair value of stock options granted to nonemployees as stock-based compensation expense over the period in which the related services are received.

Research and Development Costs

The Company has acquired research and development rights to certain technologies. The rights and licenses acquired are considered rights to unproven technology which may not have alternate future uses and therefore, are expensed as incurred as research and development costs.

Clinical trial expenses include direct costs associated with contract research organizations (“CROs”), as well as patient-related costs at sites at which our trials are being conducted. Direct costs associated with our CROs are generally payable on a time and materials basis, or when certain enrollment and monitoring milestones are achieved.

The Company incurred costs of approximately \$5.3 million and \$3.8 million on research and development for the year ended December 31, 2017 and 2016, respectively.

Income Taxes

The Company follows the asset and liability method of accounting for income taxes. Under this method, deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of assets and liabilities and their respective tax balances. Potential deferred tax assets and liabilities are measured using enacted tax rates expected to apply to the taxable income in the years in which those differences are expected to be recovered or settled. The effect on potential deferred tax assets and liabilities of a change in tax rates is recognized in the statement of operations in the period that includes the date of allowances against deferred tax assets.

Tax benefits are recognized only for tax positions that are more likely than not to be sustained upon examination by tax authorities. The amount recognized is measured as the largest amount of benefit that is greater than 50 percent likely to be realized upon settlement. A liability for “unrecognized tax benefits” is recorded for any tax benefits claimed in the Company’s tax returns that do not meet these recognition and measurement standards. As of December 31, 2017 and 2016, no liability for unrecognized tax benefits was required to be reported. The guidance also discusses the classification of related interest and penalties on income taxes. The Company’s policy is to record interest and penalties on uncertain tax positions as a component of income tax expense. No interest or penalties were recorded during the years ended December 31, 2017 and 2016.

Derivative Liability

The Company evaluates its convertible debt, options, warrants or other contracts to determine if those contracts or embedded components of those contracts qualify as derivatives to be separately accounted for. This accounting treatment requires that the carrying amount of embedded derivatives be marked-to-market at each balance sheet date and carried at fair value. In the event that the fair value is recorded as a liability, the change in fair value during the period is recorded in the Statement of Operations as either income or expense. Upon conversion, exercise or modification to the terms of a derivative instrument, the instrument is marked to fair value at the conversion date and then the related fair value is reclassified to equity.

In circumstances where the embedded conversion option in a convertible instrument is required to be bifurcated and there are also other embedded derivative instruments in the convertible instrument that are required to be bifurcated, the bifurcated derivative instruments are accounted for as a single, compound derivative instrument.

The classification of financial instruments, including whether such instruments should be recorded as liabilities or as equity, is re-assessed at the end of each reporting period. Equity instruments that are initially classified as equity that become subject to reclassification are reclassified to liability at the fair value of the instrument on the reclassification date. Derivative instrument liabilities will be classified in the balance sheet as current or non-current based on whether or not net-cash settlement of the derivative instrument is expected within 12 months of the balance sheet date.

Management must determine whether an instrument (or an embedded feature) is indexed to the Company's own stock. An entity should use a two-step approach to evaluate whether an equity-linked financial instrument (or embedded feature) is indexed to its own stock, including evaluating the instrument's contingent exercise and settlement provisions. This exercise affects the accounting for (i) certain freestanding warrants that contain exercise price adjustment features and (ii) convertible notes containing full-ratchet and anti-dilution protections (iii) certain free-standing warrants that contain contingently puttable cash settlement.

Grant Income

The Company recognizes grant income in accordance with the terms stipulated under the grant awarded to the Company's collaborators at the Mayo Foundation from the U. S. Department of Defense. In various situations, the Company receives certain payments from the U.S. Department of Defense for reimbursement of clinical supplies. These payments are non-refundable, and are not dependent on the Company's ongoing future performance. The Company has adopted a policy of recognizing these payments as grant income when received.

Loss per Common Share

Basic loss per share include only the weighted average common shares outstanding, without consideration of potentially dilutive securities. Diluted loss per share include the weighted average common shares outstanding and any potentially dilutive common stock equivalent shares in the calculation.

Cash and Credit Risk

The Company maintains cash in accounts which are in excess of the Federal Deposit Insurance Corporation ("FDIC") insured limits of \$250,000. As of December 31, 2017 and 2016, approximately \$4.9 million and \$7.6 million, respectively, in cash was uninsured based upon the FDIC insurance coverage limits.

New Accounting Pronouncements

From time to time, new accounting pronouncements are issued by the Financial Accounting Standards Board ("FASB") or other standard setting bodies that we adopt as of the specified effective date. Unless otherwise discussed, we do not believe that the impact of recently issued standards that are not yet effective will have a material impact on our financial position or results of operations upon adoption.

Recent Accounting Pronouncements Adopted in the Year

Going Concern

In August 2014, the FASB issued ASU No. 2014-15, "Presentation of Financial Statements-Going Concern", which defines management's responsibility to assess an entity's ability to continue as a going concern, and requires related footnote disclosures if there is substantial doubt about its ability to continue as a going concern. ASU No. 2014-15 is effective for the Company for the fiscal year ending on December 31, 2016, with early adoption permitted. The Company adopted ASU 2014-15 as of December 31, 2017 in its consolidated financial statements and related disclosures, which did not have a material impact on its results of operations, cash flows or financial position.

Deferred Taxes

In November 2015, FASB issued ASU No. 2015-17, "Balance Sheet Classification of Deferred Taxes". ASU No. 2015-17 requires that deferred tax liabilities and assets be classified as noncurrent in a classified statement of financial position. ASU No. 2015-17 is effective for financial statements issued for fiscal years beginning after December 15, 2016, and interim periods within those fiscal years. The Company adopted ASU No. 2015-17 on January 1, 2017 and its adoption did not have a material impact on the Company's financial position and results of operations.

Compensation-Stock Compensation

In March 2016, the FASB issued ASU No. 2016-09, Compensation-Stock Compensation (Topic 718), Improvements to Employee Share-Based Payment Accounting. Under ASU No. 2016-09, companies will no longer record excess tax benefits and certain tax deficiencies in additional paid-in capital (“APIC”). Instead, they will record all excess tax benefits and tax deficiencies as income tax expense or benefit in the income statement and the APIC pools will be eliminated. In addition, ASU No. 2016-09 eliminates the requirement that excess tax benefits be realized before companies can recognize them. ASU No. 2016-09 also requires companies to present excess tax benefits as an operating activity on the statement of cash flows rather than as a financing activity. Furthermore, ASU No. 2016-09 will increase the amount an employer can withhold to cover income taxes on awards and still qualify for the exception to liability classification for shares used to satisfy the employer’s statutory income tax withholding obligation. An employer with a statutory income tax withholding obligation will now be allowed to withhold shares with a fair value up to the amount of taxes owed using the maximum statutory tax rate in the employee’s applicable jurisdiction(s). ASU No. 2016-09 requires a company to classify the cash paid to a tax authority when shares are withheld to satisfy its statutory income tax withholding obligation as a financing activity on the statement of cash flows. Under current U.S. GAAP, it was not specified how these cash flows should be classified. In addition, companies will now have to elect whether to account for forfeitures on share-based payments by (1) recognizing forfeitures of awards as they occur or (2) estimating the number of awards expected to be forfeited and adjusting the estimate when it is likely to change, as is currently required. The amendments of this ASU are effective for reporting periods beginning after January 1, 2017, with early adoption permitted but all of the guidance must be adopted in the same period. The Company adopted this on January 1, 2017. The Company has evaluated the impact of ASU No. 2016-09 and has determined that the adoption of the impact of forfeitures, net of income taxes, will not have a material impact on the Company’s future financial statements.

Statement of Cash Flows

In August 2016, the FASB issued Accounting Standards Update (“ASU”) No. 2016-15, Statement of Cash Flows (Topic 230). This amendment provides guidance on the presentation and classification of specific cash flow items to improve consistency within the statement of cash flows. ASU 2016-15 is effective for fiscal years, and interim periods within those fiscal years beginning after December 15, 2017, with early adoption permitted. The Company adopted this as of December 31, 2017. The Company has evaluated the impact of ASU No. 2016-15 and has determined that the adoption did not have a material impact on the Company’s financial position and results of operations.

Recent Accounting Pronouncements Not Yet Adopted

Accounting for Certain Financial Instruments with Down Round Features

On July 13, 2017, the FASB has issued a two-part Accounting Standards Update (“ASU”), No. 2017-11, (i). Accounting for Certain Financial Instruments with Down Round Features and (ii) Replacement of the Indefinite Deferral for Mandatorily Redeemable Financial Instruments of Certain Nonpublic Entities and Certain Mandatorily Redeemable Noncontrolling Interests With a Scope Exception.

The ASU is effective for public business entities for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018 and the interim periods within that annual period. Early adoption is permitted. The Company will be evaluating the impact of adopting this standard on the consolidated financial statements and disclosures.

Compensation-Stock Compensation

In May 2017, the FASB issued ASU No. 2017-09, Compensation—Stock Compensation (Topic 718): Scope of Modification Accounting, which clarifies when to account for a change to the terms or conditions of a share-based payment award as a modification. Under the new guidance, modification accounting is required only if the fair value, the vesting conditions, or the classification of the award (as equity or liability) changes as a result of the change in terms or conditions. It is effective prospectively for the annual period beginning after December 15, 2017 and interim periods within that annual period. Early adoption is permitted. The Company is currently evaluating the impact of adopting this standard on the consolidated financial statements and disclosures, but does not expect it to have a significant impact.

Revenue from Contracts with Customers

In May 2014, the FASB issued ASU No. 2014-09, "Revenue from Contracts with Customers (Topic 606)" (ASU 2014-09) as modified by ASU No. 2015-14, "Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date," ASU 2016-08, "Revenue from Contracts with Customers (Topic 606): Principal versus Agent Considerations (Reporting Revenue Gross versus Net)," ASU No. 2016-10, "Revenue from Contracts with Customers (Topic 606): Identifying Performance Obligations and Licensing," and ASU No. 2016-12, "Revenue from Contracts with Customers (Topic 606): Narrow-Scope Improvements and Practical Expedients." The revenue recognition principle in ASU 2014-09 is that an entity should recognize revenue to depict the transfer of goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. In addition, new and enhanced disclosures will be required. Companies may adopt the new standard either using the full retrospective approach, a modified retrospective approach with practical expedients, or a cumulative effect upon adoption approach. The Company will adopt the new standard effective January 1, 2018, using the modified retrospective approach. The only impact of the adoption of ASU 2014-09 will be to reclassify the Company's grant income as revenue.

NOTE 3: NET LOSS PER SHARE APPLICABLE TO COMMON SHAREHOLDER

Net Loss per Share Applicable to Common Stockholders

Basic loss per common share is computed by dividing net loss by the weighted average number of common shares outstanding during the reporting period. Diluted loss per common share is computed similar to basic loss per common share except that it reflects the potential dilution that could occur if dilutive securities or other obligations to issue common stock were exercised or converted into common stock.

The following table sets forth the computation of loss per share for the years ended December 31, 2017 and 2016, respectively:

	For the Years Ended	
	December 31,	
	2017	2016
Numerator:		
Net loss	\$ (10,982,177)	\$ (2,455,381)
Less: non-cash income from change in fair value of common stock warrants	-	(2,856,000)
Net loss - diluted	<u>(10,982,177)</u>	<u>(5,311,381)</u>
Denominator:		
Weighted average common shares outstanding - basic	9,453,483	6,889,898
Dilutive effect of warrants, net	-	531,097
Weighted average common shares outstanding - diluted	<u>9,453,483</u>	<u>7,420,995</u>
Net loss per share data:		
Basic	\$ (1.16)	\$ (0.36)
Diluted	<u>\$ (1.16)</u>	<u>\$ (0.72)</u>

The following securities, rounded to the thousand, were not included in the diluted net loss per share calculation because their effect was anti-dilutive for the periods presented:

	Year Ended	
	December 31,	
	2017	2016
Common stock options	489,000	432,000
Common Stock Purchase Warrants	6,521,000	5,060,000
Potentially dilutive securities	<u>7,010,000</u>	<u>5,492,000</u>

NOTE 4: ACCOUNTS PAYABLE AND ACCRUED LIABILITIES

Accounts payable and accrued liabilities consist of the following as of December 31, 2017 and 2016, respectively:

	December 31,	December 31,
	2017	2016
Accounts payable	\$ 1,015,000	\$ 680,000
Compensation and benefits	162,000	218,000
Professional fees	32,000	53,000
Consulting agreements	-	95,000
Technology license fees	105,000	105,000
Investor relations fees	110,000	-
Other	84,000	74,000
Total accounts payable and accrued liabilities	<u>\$ 1,508,000</u>	<u>\$ 1,225,000</u>

NOTE 5: RESEARCH AGREEMENT OBLIGATIONS

In 2003, the Company entered into a license agreement with a foreign based third-party for certain adenovirus technology. The license agreement was amended several times between inception and 2008 at which time it was amended and restated and had a fixed three-year term expiring in 2011. During such time, the Company did not pursue the technology and has not undertaken further work in the area covered by the technology license. Neither the Company nor the third-party took further actions under or pursuant to the license agreement. The Company carried a historical accrual of approximately \$0.5 million under the amended license agreement related to certain obligations provided for in the license agreement. The license agreement was governed by the laws of a foreign jurisdiction. The Company sought and obtained legal advice related to such accrued obligations under the expired license agreement. The Company relied upon a judicial conclusion, as opined upon by outside legal counsel in the applicable foreign jurisdiction, that a court in such foreign jurisdiction would grant relief releasing the Company from liability under the license agreement, and in accordance with Accounting Standards Codification 405 "Extinguishment of Liabilities", the Company recorded a debt extinguishment gain of \$0.5 million and reduced the liability amount owed to \$0 during the year ended December 31, 2017.

NOTE 6: WARRANT LIABILITY

A weighted average summary of quantitative information with respect to valuation methodology and significant unobservable inputs used for the Company's common stock purchase warrants that are categorized within Level 3 of the fair value hierarchy for the years ended 2017 and 2016, respectively:

	Weighted Average Inputs for the Period	
	For the Years Ended	
	December 31, 2017	December 31, 2016
Stock price	\$ 3.92	\$ 4.37
Exercise price	\$ 1.20	\$ 1.20
Contractual term (years)	0.78	1.15
Volatility (annual)	63%	100%
Risk-free rate	1%	1%
Dividend yield (per share)	0%	0%

The foregoing assumptions are recalculated every reporting period and are subject to change based primarily on management's assessment of the probability of the events described occurring. Accordingly, changes to these assessments could materially affect the valuations.

The following table presents changes in Level 3 warrant liabilities, reflected in accrued expenses measured at fair value for the year ended December 31, 2017 and 2016, respectively:

	Warrant Liability
Balance – January 1, 2016	\$ 26,493,000
Reclassification of derivative liabilities to equity at exercise date	(5,074,000)
Reclassification of fair value of derivative liabilities to equity on amendment of warrant agreements	(15,465,000)
Change in fair value of warrant liability	(5,939,500)
Balance – December 31, 2016	14,500
Change in fair value of warrant liability	(5,500)
Balance – December 31, 2017	\$ 9,000

NOTE 7: FAIR VALUE MEASUREMENTS

Financial assets and liabilities measured at fair value on a recurring basis are summarized below and disclosed on the balance sheet under Derivative liability – warrants:

	Fair value measured at December 31, 2017			Fair value at December 31, 2017
	Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	
Warrant liability	\$ -	\$ -	\$ 9,000	\$ 9,000

	Fair value measured at December 31, 2016			Fair value at December 31, 2016
	Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	
Warrant liability	\$ -	\$ -	\$ 14,500	\$ 14,500

There were no transfers between Level 1, 2 or 3 during the year ended December 31, 2017 and 2016, respectively.

The valuation of warrants is subjective and is affected by changes in inputs to the valuation model including the price per share of common stock, the historical volatility of the stock price, risk-free rates based on U. S. Treasury security yields, the expected term of the warrants and dividend yield. Changes in these assumptions can materially affect the fair value estimate. The Company could ultimately incur amounts to settle the warrant at a cash settlement value that is significantly different than the carrying value of the liability on the financial statements. The Company will continue to classify the fair value of the warrants as a liability until the warrants are exercised, expire, or are amended in a way that would no longer require these warrants to be classified as a liability. Changes in the fair value of the common stock warrants liability are recognized as a component of other income (expense) in the Statements of Operations.

The net cash settlement value at the time of any future transactions, where the Company consolidates or merges with another entity, will depend upon the value of the following inputs at that time: the consideration value per share of the Company’s common stock, the volatility of the Company’s common stock, the remaining term of the warrant from announcement date, the risk-free interest rate based on U. S. Treasury security yields, and the Company’s dividend yield. The warrant requires use of a volatility assumption equal to the greater of 100% and the 100-day volatility function determined as of the trading day immediately following announcement of a Fundamental Transaction.

Warrant Amendment Transaction

On August 10, 2016, the Company and holders of an aggregate of 3,096,665 outstanding Series A Warrants, Series A-1 Warrants, Series C Warrants, Series C-1 Warrants, Series D Warrants, Series D-1 Warrants, Series E Warrants and Series E-1 Warrants entered into warrant amendment agreements (the “Amended Warrants”) in which they agreed to amend the terms of the outstanding series warrants to remove provisions that had previously precluded equity classification treatment on the Company’s balance sheets.

The fair value of the Amended Warrants was re-measured immediately prior to the date of amendment with changes in fair value recorded as a gain of \$5.1 million in the statement of operations and \$15.5 million was reclassified to equity.

NOTE 8: STOCKHOLDERS’ EQUITY**Preferred Stock**

The Company has authorized up to 5,000,000 shares of preferred stock, \$0.0001 par value per share, for issuance. The preferred stock will have such rights, privileges and restrictions, including voting rights, dividend conversion rights, redemption privileges and liquidation preferences, as shall be determined by the Company’s board of directors upon its issuance. To date, the Company has not issued any preferred shares.

Series A Preferred Stock - The Company has designated up to 1,250,000 shares of Series A Preferred Stock, \$0.0001 par value per share, for issuance. To date, the Company has not issued any Series A preferred shares.

Series B Preferred Stock - The Company has designated up to 1,500,000 shares of Series B Preferred Stock, \$0.0001 par value per share, for issuance. To date, the Company has not issued any Series B preferred shares.

Common Stock

The Company has authorized up to 41,666,667 shares of common stock, \$0.0001 par value per share, for issuance. Significant 2017 and 2016 common stock transactions were as follows:

2017 Common Stock Transactions

June 2017 Private Placement Transaction

On June 26, 2017, the Company completed private placement of units with certain accredited investors. In the private placement transaction, the Company sold 1,503,567 shares of common stock for \$3.97 per share and five-year warrants to purchase an equal number of shares of common stock, at an exercise price of \$3.97 per share, for \$0.125 per warrant, with one common share and one warrant being sold together as a unit for a total of \$4.095 per unit. The Company issued and sold an aggregate of 1,503,567 units for aggregate gross proceeds of \$6.2 million. The Company incurred \$0.8 million in agency fees and legal costs. In connection with the offering, the Company reduced the exercise price for the warrants to purchase an aggregate of 653,187 shares of common stock issued to investors in the private placement that closed in August 2016 from \$6.00 per share to \$3.97 per share.

In addition, the Company issued five-year warrants to the placement agent in the offering providing for the purchase of up to 150,357 shares of Company common stock for \$3.97 per share.

June 2017 Exercise and Repricing of Warrants Held by Existing Institutional Investors

On June 23, 2017, certain existing institutional shareholders of the Company who hold various outstanding warrants (i.e. C, D, E and F) to purchase Company common stock, entered into warrant repricing and exercise agreements.

Series E repriced and exercised warrants

Approximately 168,000 of Series E warrants were repriced from \$15.00 per share to \$3.97 per share and exercised immediately for gross proceeds of approximately \$0.7 million. Series E warrants to purchase approximately 187,000 shares of Company common stock being reduced from \$15.00 per share to \$4.50 per share.

Series C, D & F repriced warrants

Additionally, the exercise prices for certain investors of Series C, Series D and Series F warrants were reduced as follows:

Series	Number of		Price	
	Warrant Shares Repriced	Pre-reduced	Post-reduced	
Series C	313,750	\$ 6.00	\$ 4.00	
Series D	312,500	\$ 9.00	\$ 4.00	
Series F	292,500	\$ 7.20	\$ 4.00	

The fair value relating to the modification of exercise prices on the repriced warrants was treated as deemed dividend on the statement of stockholders' equity of \$0.6 million.

A weighted average summary of quantitative information with respect to valuation methodology and significant unobservable inputs used for the Company's common stock purchase warrants that are included in the modification is as follows:

	Before Modification	After Modification
Exercise price	\$ 8.32	\$ 4.04
Contractual term (years)	3.34	3.34
Volatility (annual)	200%	200%
Risk-free rate	2%	2%
Dividend yield (per share)	0%	0%

2017 Management Compensation

On March 9, 2017, the Company issued 12,761 shares of stock to Dr. Glynn Wilson. The fair value of the common stock of \$55,000 was recognized as stock-based compensation in general and administrative expenses. The issuance was based on the closing price of our common stock of \$4.31 per share.

On March 9, 2017, the Company issued 5,220 shares of stock to our former Chief Operating Officer. The fair value of the common stock of \$22,500 was recognized as stock-based compensation in general and administrative expenses. The issuance was based on the closing price of our common stock of \$4.31 per share.

On September 22, 2017, the Company granted Mr. Hoang 250,000 shares of unregistered, fully vested restricted common stock. The Company recorded \$0.8 million of stock-based compensation based on the fair value of the common stock at September 22, 2017. 70,289 shares of common stock, with a fair value of \$0.2 million, were withheld (at the closing price of the Company's common stock on the NASDAQ Capital Market on September 22, 2017) to satisfy certain payroll liabilities, as applicable to the award.

On September 22, 2017, the Company granted Dr. Wilson 100,000 shares of unregistered, fully vested restricted common stock. The Company recorded \$0.3 million of stock-based compensation based on the fair value of the common stock at September 22, 2017. 27,350 shares of common stock, with a fair value of \$0.1 million, were withheld (at the closing price of the Company's common stock on the NASDAQ Capital Market on September 22, 2017) to satisfy certain payroll liabilities, as applicable to the award.

Consulting Arrangements

During fiscal 2017, the Company issued 0.2 million shares of common stock as part of consulting agreements. The fair value of the common stock of \$0.6 million was recognized as stock-based compensation in general and administrative expenses.

2016 Common Stock Transactions

Private placements

On August 10, 2016 and August 25, 2016, the Company completed private placements of units with certain accredited investors. The units consisted of (i) one share of the Company's common stock, par value \$0.001 per share and (ii) one five-year warrant to purchase one share of Company common stock for \$6.00. The Company issued and sold an aggregate of 653,187 units at a purchase price per unit of \$4.80 for an aggregate of approximately \$3.1 million. The Company incurred approximately \$0.8 million in agency fees and legal costs.

Warrant Amendment Transaction

On August 10, 2016, the Company and holders of outstanding Series A Warrants, Series A-1 Warrants, Series C Warrants, Series C-1 Warrants, Series D Warrants, Series D-1 Warrants, Series E Warrants and Series E-1 Warrants entered into warrant amendment agreements in which they agreed to amend the terms of the outstanding series warrants to remove provisions that had previously precluded equity classification treatment on the Company's balance sheets.

In consideration for such amendment and the exercise of the Series C Warrants and Series C-1 Warrants, the Company issued an aggregate of 750,000 additional shares of common stock to such warrant holders and new five-year warrants to purchase 1,000,000 shares of Company common stock at an exercise price of \$7.20 per share.

Warrant Exercises

On August 11, 2016, holders of an aggregate of 583,333 outstanding Series C Warrants and 416,667 Series C-1 Warrants, each providing for the purchase of one share of our common stock for \$6.00 per share, exercised their warrants for an aggregate exercise price of \$6,000,000.

Exercise of Stock Options

In December 2016, Dr. John Bonfiglio exercised 10,417 shares of common stock pursuant to stock options at an exercise price equal to \$1.74 per share.

Debt Settlement

In May 2016, the Company issued 10,191 common shares as part of debt conversion agreements from 2014. The fair value of the common stock of approximately \$70,000 was recognized as loss on debt settlement agreements in other income (expense).

2016 Management Compensation

In July 2016, the Company entered into an employment agreement with Dr. John Bonfiglio relating to his appointment as the Company's President and Chief Operating Officer. As part of the agreement, Dr. John Bonfiglio was awarded 20,833 common shares, which will vest upon the earlier of (i) the listing of the Company's common stock on a national securities exchange in the United States or (ii) the first anniversary of the employment agreement, so long as Dr. John Bonfiglio is employed with the Company. The fair value of the common stock of approximately \$103,000 was recognized as stock-based compensation in general and administrative expense.

Consulting arrangements

During the year ended December 31, 2016, the Company issued 75,000 common shares as part of consulting agreements. The fair value of the common stock of approximately \$480,000 was recognized as stock-based compensation in general and administrative expense.

NOTE 9: WARRANTS

Share Purchase Warrants

A summary of the Company's share purchase warrants as of December 31, 2017 and 2016, respectively, and changes during the period is presented below:

	Number of Warrants	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (in years)	Total Intrinsic Value
Balance - January 1, 2016	4,343,000	8.67	4.24	\$ 5,547,000
Issued	1,718,000	6.65	-	-
Exercised	(1,000,000)	6.00	-	-
Expired	(2,000)	287.20	-	-
Balance - December 31, 2016	5,059,000	\$ 8.49	3.68	\$ 1,713,000
Issued	1,654,000	3.97	-	-
Exercised	(168,000)	15.00	-	-
Expired	(25,000)	30.50	-	-
Balance - December 31, 2017	6,520,000	\$ 6.11	3.16	\$ 1,739,000

The following table reflects the status of the outstanding warrants at December 31, 2017:

Series	Total Outstanding Warrants	Exercise Price	Expiration
A	214,433	\$ 1.20	1/13/2020
C	313,749	\$ 4.00	1/13/2020
C	110,683	\$ 6.00	1/13/2020
D	312,501	\$ 4.00	Between 07/16/2020 and 08/13/2020 and 08/19/2020 and 09/09/2020
D	297,499	\$ 9.00	Between 07/16/2020 and 08/13/2020 and 08/19/2020 and 09/09/2020
E	186,557	\$ 4.50	Between 10/01/2020 and 11/12/2020 and 11/30/2020 and 12/09/2020
E	261,616	\$ 15.00	Between 10/01/2020 and 11/12/2020 and 11/30/2020 and 12/09/2020
F	292,499	\$ 4.00	8/11/2021
F	290,834	\$ 7.20	8/11/2021
A-1	418,750	\$ 1.20	3/9/2020
C-1	2,083	\$ 6.00	1/13/2020
D-1	416,667	\$ 9.00	Between 08/19/2020 and 09/09/2020
E-1	418,750	\$ 15.00	6/16/2020
F-1	416,667	\$ 7.20	8/11/2021
PIPE Warrants	653,187	\$ 3.97	8/11/2021
PIPE Warrants	1,503,567	\$ 3.97	6/22/2022
Broker Warrants	65,326	\$ 4.80	8/11/2021
Broker Warrants	150,357	\$ 3.97	6/22/2022
Other	194,796	\$1.20 - \$120.00	Between 4/04/2018 and 9/01/2019

2017 Warrant Transactions

June 2017 Private Placement Transaction

On June 26, 2017, the Company completed private placement of units with certain accredited investors. In the private placement transaction, the Company sold 1,503,567 shares of common stock for \$3.97 per share and five-year warrants to purchase an equal number of shares of common stock, at an exercise price of \$3.97 per share, for \$0.125 per warrant, with one common share and one warrant being sold together as a unit for a total of \$4.095 per unit. The Company issued and sold an aggregate of 1,503,567 units for aggregate gross proceeds of \$6.2 million. The Company incurred \$0.8 million in agency fees and legal costs. In connection with the offering, the Company reduced the exercise price for the warrants to purchase an aggregate of 653,187 shares of common stock issued to investors in the private placement that closed in August 2016 from \$6.00 per share to \$3.97 per share.

June 2017 Exercise and Repricing of Warrants Held by Existing Institutional Investors

On June 23, 2017, certain existing institutional shareholders of the Company who hold various outstanding warrants (i.e. C, D, E and F) to purchase Company common stock, entered into warrant repricing and exercise agreements.

Series E repriced and exercised warrants

Approximately 168,000 of Series E warrants were repriced from \$15.00 per share to \$3.97 per share and exercised immediately for gross proceeds of approximately \$0.7 million. Series E warrants to purchase approximately 187,000 shares of Company common stock being reduced from \$15.00 per share to \$4.50 per share.

Series C, D & F repriced warrants

Additionally, the exercise prices for certain investors of Series C, Series D and Series F warrants were reduced as follows:

Series	Number of Warrant Shares Repriced	Pre-reduced Price	Post-reduced Price
Series C	313,750	\$ 6.00	\$ 4.00
Series D	312,500	\$ 9.00	\$ 4.00
Series F	292,500	\$ 7.20	\$ 4.00

The fair value relating to the modification of exercise prices on the repriced warrants was treated as deemed dividend on the statement of stockholders' equity of \$0.6 million.

June 2017 Agent Warrants

Pursuant to an agency agreement, dated May 12, 2017, by and between Katalyst Securities LLC and us, Katalyst agreed to act as our placement agent in connection with the June 26, 2017 private placement offering.

Pursuant to the agreement, we agreed to pay to Katalyst: (i) an aggregate cash fee for placement agent and financial advisory services equal to 10% of the gross proceeds of the Offering; (ii) a non-accountable expense allowance in the amount of Seventy Thousand Dollars (\$70,000); and (iii) five-year warrants to purchase a number of shares of our common stock equal to 10% of the number of shares sold in the offering. The Katalyst Warrants have the same terms as the private placement warrants issued in the offering. Based on the 1,503,567 shares of common stock sold in the private placement, we issued five-year warrants to Katalyst providing for the purchase of up to 150,357 shares of Company common stock for \$3.97 per share.

2016 Warrant Transactions

August 2016 Warrant Exercises

On August 11, 2016, holders of an aggregate of 583,333 outstanding Series C Warrants and 416,667 Series C-1 Warrants, each providing for the purchase of one share of our common stock for \$6.00 per share, exercised their warrants for an aggregate exercise price of \$6,000,000.

August 2016 Warrant Amendments

As discussed in Note 8, Stockholders' Equity, simultaneous with the exercise of the warrants, the Company and holders of outstanding Series A Warrants, Series A-1 Warrants, Series C Warrants, Series C-1 Warrants, Series D Warrants, Series D-1 Warrants, Series E Warrants and Series E-1 Warrants entered into warrant amendment agreements, in which they agreed to amend the terms of the existing warrant agreements to remove provisions that had previously caused them to be classified as a derivative liability as opposed to equity on our balance sheet. In consideration for such amendment and the exercise of the Series C Warrants and Series C-1 Warrants, we issued an aggregate of 750,000 additional shares of common stock to such warrant holders and new five-year warrants to purchase 1,000,000 shares of our common stock at an exercise price of \$7.20 per share (the "Series F and F-1 Warrants"). The value of the shares and fair value of the warrants was treated as dividend on the statement of stockholders' equity of \$4.5 million.

August 2016 Private Placement Transaction

On August 10, 2016 and August 25, 2016, the Company completed private placements of units with certain accredited investors. The units consisted of (i) one share of the Company's common stock, par value \$0.001 per share and (ii) one five-year warrant to purchase one share of Company common stock for \$6.00. The Company issued and sold an aggregate of 653,187 units at a purchase price per unit of \$4.80 for an aggregate of approximately \$3.1 million. The Company incurred approximately \$0.8 million in agency fees and legal costs.

In addition, the Company issued five-year warrants to the placement agent in the offering providing for the purchase of up to 65,317 shares of Company common stock for \$4.80 per share.

NOTE 10: STOCK OPTION PLANS

Options to Purchase Shares of Common Stock

2014 Stock Omnibus Plan

On March 19, 2014, the Board adopted the 2014 Omnibus Stock Option Plan (“2014 Plan”), which replaced the 2009 Stock Incentive Plan. The 2014 Plan allowed for grants of stock options, restricted shares, stock bonuses and other equity based awards to employees and non-employee directors of the Company. Awards under the 2014 Plan may be at prices and for terms as determined by the Board of Directors, and may have vesting requirements as determined by the Board, provided that the exercise price for any stock option must be at least equal to the fair market value (as defined in the 2014 Plan) of a share of the stock on the grant date. Once granted, the exercise price of an option may not be reduced without the approval of the Company’s stockholders, other than under certain limited circumstances such as a stock split, or take any other action with respect to a stock option that would be treated as a repricing under the rules and regulations of the New York Stock Exchange.

The 2014 Plan was amended in February 2015 to provide for grants to consultants, and again in November 2015 to (i) increase the number of shares reserved for issuance under the Plan to 0.6 million shares; (ii) provide the Board and Committee administering the Plan with full discretion on the vesting period for Service-Vesting Awards under the Plan, including the grant of Awards with less than the Minimum Vesting Requirement (as such terms are defined in the Plan), and (iii) provide the Board and Committee administering the Plan with the ability to grant stock bonuses to executive officers.

On August 29, 2017, the 2014 Plan was amended to increase the shares reserved under the Plan to 1.4 million shares. As of December 31, 2017, approximately 533,000 options are available to be issued from the 2014 Plan.

Stock Options

A summary of the Company’s stock option activity is as follows for stock options:

	<u>Number of Shares</u>	<u>Weighted Average Exercise Price</u>	<u>Total Intrinsic Value</u>	<u>Weighted Average Remaining Contractual Life (in years)</u>
Outstanding as of January 1, 2016	298,679	\$ 9.22	\$ 177,000	9.7
Granted	147,500	5.84	-	9.3
Exercised	(10,417)	1.74	-	-
Forfeited/expired	(1,667)	228.00	-	-
Outstanding as of December 31, 2016	434,095	7.41	39,000	8.9
Granted	90,000	3.18	-	9.7
Forfeited/expired	(34,840)	6.75	-	-
Outstanding as of December 31, 2017	489,255	\$ 6.68	\$ 107,000	8.3
Options vested and exercisable	385,760	\$ 7.44	\$ 41,000	8.0

The Black-Scholes option pricing model is used to estimate the fair value of stock options granted under the Company’s share-based compensation plans. The weighted average assumptions used in calculating the fair values of stock options that were granted during the years ended December 31, 2017, 2016, respectively, were as follows:

	For the Years Ended December 31,	
	2017	2016
Exercise price	\$ 3.25	\$ 5.84
Expected term (years)	10.0	9.7
Expected stock price volatility	217%	238%
Risk-free rate of interest	2%	2%
Expected dividend rate	0%	0%

The Company recorded \$2.6 million and \$1.6 million of stock-based compensation expense to general and administrative expenses for the years ended December 31, 2017 and 2016, respectively. The Company recorded \$0.1 million of stock-based compensation expense to research and development for the year ended December 31, 2017.

Unrecognized stock-based compensation cost:	\$ 262,000
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Expected weighted average period compensation costs to be recognized (years):	0.7
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NOTE 11: GRANT INCOME

During the years ended December 31, 2017 and 2016, the Company received \$0.2 million of a grant awarded to Mayo Foundation from the U.S. Department of Defense for the Phase II Clinical Trial of TPIV200. The grant compensated the Company for clinical supplies manufactured and provided by the Company for the clinical study.

NOTE 12: CONTINGENCIES AND COMMITMENTS

Employment Agreements

On August 25, 2016, the Company appointed Michael J. Loiacono as the Company's Chief Financial Officer, Chief Accounting Officer, Secretary and Treasurer. In connection with Mr. Loiacono's appointment, he entered into an employment agreement with the Company. The employment agreement provides that Mr. Loiacono's base salary will be \$200,000 per year and he is eligible for an annual performance bonus of up to 50% of his base salary. The term of the employment agreement is for two years and will be automatically extended for an additional 12 months unless terminated by Mr. Loiacono or the Company.

On September 22, 2017, the Company appointed Peter Hoang as the Company's President and Chief Executive Officer. In connection with Mr. Hoang's appointment, he entered into an employment agreement with the Company. The employment agreement provides that Mr. Hoang's base salary will be \$362,500 per year and he is eligible for an annual performance bonus of up to 50% of his base salary. In addition, on the first anniversary of the employment agreement, Mr. Hoang will be eligible to receive a grant of stock options to purchase the number of shares of common stock equal to one percent of the then-outstanding common stock of the Company. The term of the employment agreement is for three years and will be automatically extended for an additional 12 months unless terminated by Mr. Hoang or the Company.

On September 22, 2017, the Company entered into an amended employment agreement with Dr. Glynn Wilson, the Company's Strategic Advisor. The amended employment agreement provides that Dr. Wilson's base salary will be \$205,000 per year and he is eligible for an annual performance bonus of up to 50% of his base salary. In addition, upon the first anniversary of the execution of amendment employment agreement, Dr. Wilson will be eligible to receive an additional grant of restricted common stock equal to \$300,000. The term of the employment agreement is through December 31, 2018.

Operating Lease Obligations

The Company was a party to several operating leases as of December 31, 2017, primarily for office space at certain locations.

Future minimum lease payments under the Company's operating leases as of December 31, 2017, for each of the next five years and thereafter are as following (rounded to nearest thousand):

2018	\$ 116,000
2019	108,000
2020	111,000
2021	114,000
2022	68,000
Thereafter	-
Total	<u>\$ 517,000</u>

Total rental expense under the Company's operating leases was \$121,200 and \$82,500 for the years ended December 31, 2017 and 2016, respectively.

NOTE 13: LEGAL PROCEEDINGS

From time to time, the Company may be party to ordinary, routine litigation incidental to their business. The Company knows of no material, active or pending legal proceedings against the Company, nor is the Company involved as a plaintiff in any material proceeding or pending litigation. There are no proceedings in which any of the Company's directors, officers or affiliates, or any registered or beneficial shareholder, is an adverse party or has a material interest adverse to the Company's interest. The Company was not involved in any litigation during the years ended December 31, 2017 and 2016.

NOTE 14: INCOME TAXES

The Company has no income tax expense due to operating losses incurred for the years ended December 31, 2017 and 2016. Approximately \$62,000 in non-qualified stock options were cancelled during 2017 due to terminations that resulted in a reversal of the deferred tax asset of approximately \$16,000. The cancellations did not result in a book income for December 31, 2017.

The effects of temporary differences that give rise to significant portions of the deferred tax assets as of December 31, 2017 and 2016 are as follows:

	For the years ended December 31,	
	2017	2016
Deferred tax assets:		
Net operating loss carryforward	\$ 13,653,000	\$ 10,934,000
Stock-based compensation	2,231,000	2,066,000
License agreements	493,000	490,000
Research and development	117,000	117,000
Technology licensing fee	185,000	185,000
Valuation allowance	(16,679,000)	(13,792,000)
Deferred tax assets, net of valuation allowance	<u>\$ -</u>	<u>\$ -</u>

On December 22, 2017, the U.S. government enacted comprehensive tax legislation commonly referred to as the Tax Cuts and Jobs Act (the "Tax Act"), which makes broad and complex changes to the U.S. tax code. Certain of these changes may be applicable to the Company, including but not limited to, reducing the U.S. federal corporate tax rate from 35 percent to 21 percent, creating a new limitation on deductible interest expense, eliminating the corporate alternative minimum tax ("AMT"), modifying the rules related to uses and limitations of net operating loss carryforwards generated in tax years ending after December 31, 2017, and changing the rules pertaining to the taxation of profits earned abroad. Changes in tax rates and tax laws are accounted for in the period of enactment. The Tax Act reduces the corporate tax rate to 21 percent, effective January 1, 2018.

The Company assesses the likelihood that deferred tax assets will be realized. To the extent that realization is not likely, a valuation allowance is established. Based upon the history of losses, management believes that it is more likely than not that future benefits of deferred tax assets will not be realized and has established a full valuation allowance for the years ended December 31, 2017 and 2016. Consequently, the deferred tax asset valuation allowance increased by \$2.9 million as of December 31, 2017. The Company has research and development tax credit carryforwards of \$117,000 to offset future federal income taxes. The research and development tax credit carryforwards begin to expire in 2029.

The Company has approximately \$41.7 million of federal and \$21.9 million of state Net Operating Loss ("NOL"s) that may be available to offset future taxable income, if any. The federal net operating loss carryforwards, if not utilized, will expire between 2029 and 2037. The state net operating loss carryforwards, if not utilized, will expire in 2037.

In accordance with Section 382 of the Internal Revenue code, the usage of the Company's net operating loss carryforwards may be limited in the event of a change in ownership. A full Section 382 analysis has not been prepared and NOLs could be subject to limitation under Section 382.

For the years ended December 31, 2017 and 2016, the expected tax expense (benefit) based on the U. S. federal statutory rate is reconciled with the actual tax provision (benefit) as follows:

	For the years ended	
	December 31,	
	2017	2016
U. S. federal statutory rate	\$ (3,734,000)	\$ (835,000)
State taxes, net of federal benefit	(414,000)	(286,000)
Federal tax rate change	1,401,000	-
Permanent differences		
- Change in fair value of derivative liabilities	(2,000)	(2,019,000)
- Other permanent differences	(161,000)	46,000
Change in valuation allowance	2,890,000	2,966,000
Other	20,000	128,000
Income tax provision (benefit)	<u>\$ -</u>	<u>\$ -</u>

ASC 740 prescribes a recognition threshold and a measurement attribute for the financial statement recognition and measurement of tax positions taken or expected to be taken in a tax return. For those benefits to be recognized, a tax position must be more-likely-than-not to be sustained upon examination by taxing authorities. As of December 31, 2017 and 2016, there were no unrecognized tax benefits. The Company recognizes accrued interest and penalties as income tax expense. No amounts were accrued for the payment of interest and penalties at December 31, 2017 and 2016. The Company is currently not aware of any issues under review that could result in significant payments, accruals or material deviation from its position in the next year.

Upon completion of our 2017 U.S. income tax return in 2018 we may identify additional remeasurement adjustments to our recorded deferred tax liabilities and the one-time transition tax. We will continue to assess our provision for income taxes as future guidance is issued, but do not currently anticipate significant revisions will be necessary. Any such revisions will be treated in accordance with the measurement period guidance outlined in Staff Accounting Bulletin No. 118.

A reconciliation of the Company's effective tax rate to the statutory U.S. federal rate is as follows:

	For the years ended	
	December 31,	
	2017	2016
U. S. federal statutory rate	(34.0)%	(34.0)%
State taxes, net of federal benefit	(3.6)%	(11.6)%
Federal tax rate change	12.3%	0.0%
Permanent differences		
- Change in fair value of derivative liabilities	(0.0)%	(82.2)%
- Other permanent differences	(1.5)%	1.9%
Change in valuation allowance	26.3%	120.8%
Other	0.5%	5.2%
Income tax provision (benefit)	<u>(0.0)%</u>	<u>0.0%</u>

EXHIBIT INDEX

Exhibit number	Exhibit description	Incorporated by Reference				Filed herewith
		Form	File no.	Exhibit	Filing date	
3.1	Articles of Incorporation as Amended	10-Q	001-37939	3.1	11/4/16	
3.2	Certificate of Change to Articles of Incorporation (reverse split)	8-K	000-27239	3.1	9/15/16	
3.3	Amended and Restated Bylaws	8-K	000-27239	3.1	7/15/16	
4.0	Form of Stock Certificate					<u>X</u>
4.1	Form of Common Stock Purchase Warrant	8-K	000-27239	4.1	8/14/14	
4.2	Form of Placement Agent Warrant Common Stock Purchase Warrants-Series A	8-K	000-27239	4.6	1/12/15	
4.3	Form of Placement Agent Warrant Common Stock Purchase Warrants-Series C	8-K	000-27239	4.8	1/12/15	
4.4	Form of Placement Agent Warrant Common Stock Purchase Warrants-Series D	8-K	000-27239	4.9	1/12/15	
4.5	Form of Placement Agent Warrant Common Stock Purchase Warrants-Series E	8-K	000-27239	4.10	1/12/15	
4.6	Form of Placement Agent Warrant Common Stock Purchase Warrants-Series A-1	8-K	000-27239	4.6	3/10/15	
4.7	Form of Placement Agent Warrant Common Stock Purchase Warrants-Series C-1	8-K	000-27239	4.8	3/10/15	
4.8	Form of Placement Agent Warrant Common Stock Purchase Warrants-Series D-1	8-K	000-27239	4.9	3/10/15	
4.9	Form of Placement Agent Warrant Common Stock Purchase Warrants-Series E-1	8-K	000-27239	4.10	3/10/15	
4.10	Form of Amended Series A Warrant	8-K	000-27239	4.2	8/11/16	
4.11	Form of Amended Series C Warrant	8-K	000-27239	4.3	8/11/16	
4.12	Form of Amended Series D Warrant	8-K	000-27239	4.4	8/11/16	
4.13	Form of Amended Series E Warrant	8-K	000-27239	4.5	8/11/16	
4.14	Form of Amended Series A-1 Warrant	8-K	000-27239	4.6	8/11/16	
4.15	Form of Amended Series D-1 Warrant	8-K	000-27239	4.7	8/11/16	
4.16	Form of Amended Series E-1 Warrant	8-K	000-27239	4.8	8/11/16	
4.17	Form of Series F Warrant	8-K	000-27239	4.9	8/11/16	

Exhibit number	Exhibit description	Incorporated by Reference			Filed herewith
		Form	File no.	Exhibit	
4.18	Form of Series F-1 Warrant	8-K	000-27239	4.10	8/11/16
4.19	Form of August 2016 Private Placement Warrant	8-K	000-27239	4.1	8/11/16
4.20	Form of 2016 Private Placement Agent Warrant	8-K	000-27239	4.11	8/11/16
4.21	Form of June 2017 Private Placement Warrant	8-K	001-37939	4.1	6/22/17
4.22	Form of 2017 Private Placement Agent Warrant	8-K	001-37939	4.2	6/22/17
4.23	Form of Registration Rights Agreement August 2016 Private Placement	8-K	000-27239	10.2	8/11/16
4.24	Form of Registration Rights Agreement June 2017 Private Placement	8-K	001-37939	10.2	6/22/17
10.1	Form of Securities Purchase Agreement, dated as of January 12, 2015, by and among the Company and the Purchasers	8-K	000-27239	10.1	1/12/15
10.2	Securities Purchase Agreement, dated as of March 9, 2015, by and among the Company and Eastern Capital Limited	8-K	000-27239	10.1	3/9/15
10.3	Form of Restructuring Agreement dated May 28, 2015	8-K	000-27239	10.1	6/3/15
10.4	Amended and Restated Restructuring Agreement, dated as of June 2, 2015	8-K	000-27239	10.1	6/5/15
10.5	Form of Subscription Agreement August 2016 Private Placement	8-K	000-27239	10.1	8/11/16
10.6	Form of Registration Rights Agreement August 2016 Private Placement	8-K	000-27239	10.2	8/11/16
10.7	Form of Warrant Amendment Agreement August 2016 Private Placement	8-K	000-27239	10.3	8/11/16
10.8	Agency Agreement August 2016 Private Placement	8-K	000-27239	10.4	8/11/16
10.9	Form of Subscription Agreement June 2017 Private Placement	8-K	001-37939	10.1	6/22/17
10.10	Form of Registration Rights Agreement June 2017 Private Placement	8-K	001-37939	10.2	6/22/17
10.11	Form of Warrant Exercise Agreement	8-K	001-37939	10.3	6/22/17
10.12	Agency Agreement June 2017 Private Placement	8-K	001-37939	10.4	6/22/17
10.13	First Amendment to Agency Agreement June 2017 Private Placement	8-K	001-37939	10.1	6/26/17
10.14	License and Assignment Agreement, dated July 21, 2015, with The Mayo Foundation for Medical Education and Research**	10-Q	000-27239	10.1	8/14/15
10.15	License and Assignment Agreement with Mayo Foundation for Medical Education and Research dated May 19, 2016**	10-Q	000-27239	10.7	8/15/16
10.16	2009 Stock Incentive Plan*	DEF14-C	000-27239	B	1/29/10
10.17	2014 Omnibus Stock Ownership Plan, as amended through August 29, 2017*	8-K	001-37939	10.1	9/5/17

Exhibit number	Exhibit description	Incorporated by Reference			Filed herewith
		Form	File no.	Filing date	
10.18	Form of Stock Option Award Agreement – Key Employee*	10-Q	000-27239	10.4	11/16/15
10.19	Form of Stock Option Award Agreement – Non-employee Director*	10-Q	000-27239	10.5	11/16/15
10.20	Form of Stock Option Award Agreement – Consultant*	10-Q	000-27239	10.6	11/16/15
10.21	Form of Restricted Stock Award Agreement – Consultant*	10-Q	000-27239	10.7	11/16/15
10.22	Employment Agreement between TapImmune, Inc. and Dr. Glynn Wilson, dated November 12, 2015*	10-Q	000-27239	10.8	11/16/15
10.23	Amendment to Employment Agreement between TapImmune Inc. and Glynn Wilson, dated as of July 18, 2016*	8-K	000-27239	10.1	7/19/16
10.24	Amendment to Employment Agreement between TapImmune Inc. and Glynn Wilson, dated as of September 22, 2017	8-K	001-37939	10.2	9/25/17
10.25	Employment Agreement between TapImmune Inc. and Peter Hoang dated as of September 22, 2017	8-K	001-37939	10.1	9/25/17
10.26	Employment Agreement by and between TapImmune Inc. and Michael J. Loiacono dated as of August 25, 2016*	8-K	000-27239	10.1	8/25/16
10.27	Form of Director and Officer Indemnification Agreement*				X
14	Code of Ethics	10-Q	000-27239	14	11/16/15
23.1	Consent of Marcum LLP, an independent public accounting firm.				X
24.1	Powers of Attorney (included on signature page).				X
31.1	Certification of Chief Executive Officer pursuant to Securities Exchange Act of 1934 Rule 13a-14(a) or 15d-14(a).				X
31.2	Certification of Chief Financial Officer and Chief Accounting Officer pursuant to Securities Exchange Act of 1934 Rule 13a-14(a) or 15d-14(a).				X
32.1	Certification of Chief Executive Officer pursuant to 18 U. S. C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.				X
32.2	Certification of Chief Financial Officer and Chief Accounting Officer pursuant to 18 U. S. C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.				X
101.INS	XBRL Instance Document				X
101.SCH	XBRL Taxonomy Extension Schema Document				X
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document				X
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document				X
101.LAB	XBRL Taxonomy Extension Label Linkbase Document				X
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document				X

*Executive management contract or compensatory plan or arrangement.

** Confidential treatment has been granted as to certain portions of this exhibit pursuant to Rule 406 of the Securities Act of 1933, as amended, or Rule 24b-2 of the Securities Exchange Act of 1934, as amended.



CERTIFICATE NUMBER

PAR VALUE \$0.0001
COMMON STOCK



TAPIMMUNE

INCORPORATED UNDER THE LAWS OF THE STATE OF NEVADA



* 9000000 *

SHARES

CUSIP NO. 999999ZZ9

** SPECIMEN **

THIS CERTIFIES THAT

IS THE OWNER OF

** NINE MILLION **

FULLY PAID AND NON-ASSESSABLE SHARES OF THE COMMON STOCK PAR VALUE OF \$0.0001 EACH OF

TAPIMMUNE, INC.

TRANSFERABLE ON THE BOOKS OF THE CORPORATION IN PERSON OR BY DULY AUTHORIZED ATTORNEY UPON SURRENDER OF THIS CERTIFICATE PROPERLY ENDORSED. THIS CERTIFICATE IS NOT VALID UNTIL COUNTERSIGNED BY THE TRANSFER AGENT AND REGISTERED BY THE REGISTRAR. WITNESS THE FACSIMILE SEAL OF THE CORPORATION AND THE FACSIMILE SIGNATURES OF ITS DULY AUTHORIZED OFFICERS.

Peter L. Hoang
President & CEO

Michael J. Loiacono
CFO & Chief Accounting Officer

DATED: 01/01/2009

COUNTERSIGNED AND REGISTERED:
ISLAND STOCK TRANSFER
Transfer Agent

By

Authorized Signature



15500 Roosevelt BLVD, Suite 301, Clearwater Fl 33760
727.289.0010

CERT.9999

999999

TEST ISSUE REF 1999 5 4375% 12/31/5

INDEMNIFICATION AGREEMENT

This Indemnification Agreement (this “*Agreement*”) is made effective as of _____, 2018, by and between Tapimmune Inc., a Nevada corporation (the “*Company*”), and _____ (“*Indemnitee*”).

WHEREAS, the Company desires to attract and retain the services of highly qualified individuals, such as Indemnitee, to serve the Company and its related entities;

WHEREAS, the Company recognizes that competent and experienced individuals are reluctant to serve as directors or officers of corporations unless they are protected by comprehensive liability insurance or indemnification, or both, due to increased exposure to litigation costs and risks resulting from their service to such corporations, and due to the fact that the exposure frequently bears no reasonable relationship to the compensation of such directors and officers;

WHEREAS, the Company and Indemnitee recognize the substantial increase in corporate litigation in general, subjecting directors, officers, employees, agents and fiduciaries to expensive litigation risks;

WHEREAS, the Board has determined that the increased difficulty in attracting and retaining such persons is detrimental to the best interests of the Company and its stockholders and that the Company should act to assure such persons that there will be increased certainty of such protection in the future;

WHEREAS, it is reasonable, prudent and necessary for the Company contractually to obligate itself to indemnify, and to advance expenses on behalf of, such persons to the fullest extent permitted by applicable law so that they will serve or continue to serve the Company free from undue concern that they will not be so indemnified;

WHEREAS, Chapter 78 of the Nevada Revised Statutes (the “*NRS*”) empowers the Company to indemnify its officers, directors, employees and agents and to indemnify persons who serve or served, at the request of the Company, as the directors, officers, employees or agents of another corporation, partnership, joint venture, trust or other enterprise and the NRS further provides that the Company’s articles or bylaws or an agreement made by the Company may provide that the expenses of officers and directors incurred in defending a civil or criminal action, suit or proceeding must be paid by the Company as such expenses are incurred and in advance of the final disposition of such action, suit or proceeding, upon receipt of an undertaking to repay the amount if it is ultimately determined by a court of competent jurisdiction that the director or officer is not entitled to be indemnified;

WHEREAS, the NRS expressly provides that the indemnification and advancement of expenses authorized under the NRS do not exclude any other rights to which those seeking indemnification or advancement of expenses may be entitled under the articles or bylaws or pursuant to any agreement, vote of stockholders or disinterested directors or otherwise;

WHEREAS, the Company’s Amended and Restated Bylaws (the “*Bylaws*”) expressly allow the Company to indemnify its directors, officers, agents and employees to the maximum extent permitted under Nevada law; and

WHEREAS, in view of the considerations set forth above, the Company desires that Indemnitee shall be indemnified by the Company as set forth herein.

NOW, THEREFORE, in consideration of the premises and covenants in this Agreement, and intending to be legally bound hereby, the parties hereto agree as follows:

1. Certain Definitions.

(a) **“Claim”** shall mean any threatened, pending or completed action, suit, proceeding or alternative dispute resolution mechanism, or any hearing, inquiry or investigation that Indemnitee in good faith believes might lead to the institution of any such action, suit, proceeding or alternative dispute resolution mechanism, whether civil, criminal, administrative, investigative or other.

(b) References to the **“Company”** shall include, in addition to Tapimmune Inc., any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger to which Tapimmune Inc. (or any of its wholly owned subsidiaries) has been or becomes a party which, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, employees, agents or fiduciaries, so that if Indemnitee is or was a director, officer, employee, agent or fiduciary of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee, agent or fiduciary of another corporation, partnership, joint venture, employee benefit plan, trust or other enterprise, Indemnitee shall stand in the same position under the provisions of this Agreement with respect to the resulting or surviving corporation as Indemnitee would have with respect to such constituent corporation if its separate existence had continued.

(c) **“Expenses”** shall be broadly construed and shall mean any and all direct and indirect costs and expenses (including, without limitation, attorneys’ fees and all other costs, expenses and obligations incurred in connection with investigating, defending, being a witness in or participating in (including on appeal), or preparing to defend, to be or prepare to be a witness in or to participate in, any action, suit, proceeding, alternative dispute resolution mechanism, hearing, inquiry or investigation), judgments, fines, penalties and amounts paid in settlement (if such settlement is approved in advance by the Company, which approval shall not be unreasonably withheld) of any Claim regarding any Indemnifiable Event and any federal, state, local or foreign taxes imposed on Indemnitee as a result of the actual or deemed receipt of any payments under this Agreement.

(d) **“Expense Advance”** shall mean an advance payment of Expenses to Indemnitee pursuant to this Agreement.

(e) **“Indemnifiable Event”** shall mean any event or occurrence related to the fact that Indemnitee is or was a director, officer, employee, agent or fiduciary of the Company, or any subsidiary of the Company, or any predecessor of the Company or subsidiary, or is or was serving at the request of the Company or a predecessor of the Company as a director, officer, employee, agent or fiduciary of another corporation, partnership, joint venture, trust or other enterprise, or by reason of any action or inaction on the part of Indemnitee while serving in such capacity.

(f) References to **“other enterprise”** shall include employee benefit plans; references to **“fines”** shall include any excise taxes assessed on Indemnitee with respect to an employee benefit plan; and references to **“serving at the request of the Company”** shall include any service as a director, officer, employee, agent or fiduciary of the Company which imposes duties on, or involves services by, such director, officer, employee, agent or fiduciary with respect to an employee benefit plan, its participants or its beneficiaries.

(g) **“SEC”** means the Securities and Exchange Commission.

(h) **“Securities Act”** means the Securities Act of 1933, as amended.

2. Indemnification.

(a) **Nonexclusive Indemnity.** The Company shall indemnify Indemnitee to the fullest extent permitted by Nevada law and by the Bylaws in effect on the date hereof, and as Nevada law, the Bylaws may from time to time be amended (but, in the case of any such amendment, only to the extent such amendment permits the Company to provide broader indemnification rights than Nevada law and the Bylaws permit the Company to provide before such amendment). Such indemnification shall include, without limitation, the following:

(i) Indemnity Involving Third Party Claims. The Company shall indemnify Indemnitee if Indemnitee is a party to or is threatened to be made a party to or is otherwise involved in any Claim (other than a Claim by or in the name of the Company to procure a judgment in its favor) by reason of an Indemnifiable Event, against all Expenses incurred by Indemnitee in connection with the investigation, defense, settlement or appeal of such Claim, if he or she either (i) is not liable pursuant to NRS 78.138 or (ii) acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interest of the Company and, in the case of a criminal Claim, had no reasonable cause to believe that his or her conduct was unlawful. The termination of any such Claim by judgment, order of court, settlement, conviction or upon a plea of nolo contendere, or its equivalent, does not, of itself, create a presumption that Indemnitee is liable pursuant to NRS 78.138 or did not act in good faith or in a manner which he or she reasonably believed to be in or not opposed to the best interest of the Company or, with respect to any criminal Claim, that Indemnitee had reasonable cause to believe that his or her conduct was unlawful. Such payment of Expenses shall be made by the Company as soon as practicable but in any event no later than 30 business days after written demand by Indemnitee therefor is presented to the Company (or, if demand is made pursuant to Section 3(a) hereof, then no later than the date set forth in such section).

(ii) Indemnity in Derivative Actions. The Company shall indemnify Indemnitee if Indemnitee is a party to or is threatened to be made a party to or is otherwise involved in any Claim by or in the name of the Company to procure a judgment in its favor by reason of an Indemnifiable Event, against all Expenses incurred by Indemnitee in connection with the investigation, defense, settlement or appeal of such Claim, but only if Indemnitee is not liable pursuant to NRS 78.138 and acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interest of the Company, except that no indemnification under this Section 2(a)(ii) shall be made for any claim, issue or matter to which Indemnitee has been adjudged by a court of competent jurisdiction, after the exhaustion of all appeals therefrom, to be liable to the Company or for amounts paid in settlement to the Company, unless and only to the extent that any court in which such Claim is brought or other court of competent jurisdiction determines upon application that, in view of all the circumstances of the case, Indemnitee is fairly and reasonably entitled to indemnity for such amounts as the court shall deem proper. Such payment of Expenses shall be made by the Company as soon as practicable but in any event no later than 30 business days after written demand by Indemnitee therefor is presented to the Company (or, if demand is made pursuant to Section 3(a) hereof, then no later than the date set forth in such section).

(b) Mandatory Payment of Expenses. Notwithstanding any other provision of this Agreement other than Section 9 hereof, to the extent that Indemnitee has been successful on the merits or otherwise, including, without limitation, the dismissal of an action without prejudice, in defense of any Claim regarding any Indemnifiable Event, Indemnitee shall be indemnified against all Expenses incurred by Indemnitee in connection therewith.

(c) Contribution.

(i) Whether or not the indemnification provided in Section 2 hereof is available, in respect of any threatened, pending or completed action, suit or proceeding in which the Company is jointly liable with Indemnitee (or would be if joined in such action, suit or proceeding), the Company shall pay, in the first instance, the entire amount of any judgment or settlement of such action, suit or proceeding without requiring Indemnitee to contribute to such payment and the Company hereby waives and relinquishes any right of contribution it may have against Indemnitee. The Company shall not enter into any settlement of any action, suit or proceeding in which the Company is jointly liable with Indemnitee (or would be if joined in such action, suit or proceeding) unless such settlement provides for a full and final release of all claims asserted against Indemnitee.

(ii) Without diminishing or impairing the obligations of the Company set forth in the preceding subparagraph, if, for any reason, Indemnatee shall elect or be required to pay all or any portion of any judgment or settlement in any threatened, pending or completed action, suit or proceeding in which the Company is jointly liable with Indemnatee (or would be if joined in such action, suit or proceeding), the Company shall contribute to the amount of Expenses, judgments, fines and amounts paid in settlement actually and reasonably incurred and paid or payable by Indemnatee in proportion to the relative benefits received by the Company and all officers, directors or employees of the Company, other than Indemnatee, who are jointly liable with Indemnatee (or would be if joined in such action, suit or proceeding), on the one hand, and Indemnatee, on the other hand, from the transaction from which such action, suit or proceeding arose; provided, however, that the proportion determined on the basis of relative benefit may, to the extent necessary to conform to law, be further adjusted by reference to the relative fault of the Company and all officers, directors or employees of the Company other than Indemnatee who are jointly liable with Indemnatee (or would be if joined in such action, suit or proceeding), on the one hand, and Indemnatee, on the other hand, in connection with the events that resulted in such expenses, judgments, fines or settlement amounts, as well as any other equitable considerations which the Law may require to be considered. The relative fault of the Company and all officers, directors or employees of the Company, other than Indemnatee, who are jointly liable with Indemnatee (or would be if joined in such action, suit or proceeding), on the one hand, and Indemnatee, on the other hand, shall be determined by reference to, among other things, the degree to which their actions were motivated by intent to gain personal profit or advantage, the degree to which their liability is primary or secondary and the degree to which their conduct is active or passive.

(iii) The Company hereby agrees to fully indemnify and hold Indemnatee harmless from any claims of contribution which may be brought by officers, directors or employees of the Company, other than Indemnatee, who may be jointly liable with Indemnatee.

(iv) To the fullest extent permissible under applicable law, if the indemnification provided for in this Agreement is unavailable to Indemnatee for any reason whatsoever, the Company, in lieu of indemnifying Indemnatee, shall contribute to the amount incurred by Indemnatee, whether for judgments, fines, penalties, excise taxes, amounts paid or to be paid in settlement and/or for Expenses, in connection with any claim relating to an indemnifiable event under this Agreement, in such proportion as is deemed fair and reasonable in light of all of the circumstances of such Proceeding in order to reflect (a) the relative benefits received by the Company and Indemnatee as a result of the event(s) and/or transaction(s) giving cause to such Proceeding; and/or (b) the relative fault of the Company (and its directors, officers, employees and agents) and Indemnatee in connection with such event(s) and/or transaction(s).

3. Expenses; Indemnification Procedure.

(a) Expense Advances. To the extent not prohibited by law, the Company shall advance the Expenses incurred by Indemnatee in connection with any proceeding, and such advancement shall be made within 20 business days after the receipt by the Company of a statement or statements requesting such advances (which shall include invoices received by Indemnatee in connection with such Expenses but, in the case of invoices in connection with legal services, any references to legal work performed or to expenditures made that would cause Indemnatee to waive any privilege accorded by applicable law shall not be included with the invoice); *provided*, that Indemnatee has provided the Company with an undertaking to repay all Expense Advances if and to the extent that it is ultimately determined by a court of competent jurisdiction in a final judgment, not subject to appeal, that Indemnatee is not entitled to be indemnified by the Company and such undertaking remains in effect. Expense Advances shall be unsecured, interest free and without regard to Indemnatee's ability to repay the Expense Advances. Expense Advances shall include any and all Expenses actually and reasonably incurred by Indemnatee pursuing an action to enforce Indemnatee's right to indemnification under this Agreement or otherwise, and this right of advancement, including expenses incurred preparing and forwarding statements to the Company to support the advances claimed. The right to Expense Advances under this Section 3(a) shall continue until final disposition of any proceeding, including any appeal therein. This Section 3(a) shall not apply to any claim made by Indemnatee for which indemnity is excluded pursuant to Section 9(b).

(b) Undertaking to Repay Expense Advances. Indemnitee acknowledges and agrees that the execution and delivery of this Agreement shall constitute an undertaking by Indemnitee that Indemnitee shall, to the fullest extent required by law, repay all Expense Advances if and to the extent that it is ultimately determined by a court of competent jurisdiction in a final judgment, not subject to appeal, that Indemnitee is not entitled to be indemnified by the Company.

(c) Notice; Cooperation by Indemnitee. Indemnitee shall give the Company notice in writing as soon as practicable of any Claim made against Indemnitee for which indemnification will or could be sought under this Agreement. Notice to the Company shall be directed to the Chief Executive Officer of the Company at the address or facsimile number shown on the signature page of this Agreement (or such other address or facsimile number as the Company shall designate in writing to Indemnitee). The failure of Indemnitee to so notify the Company shall not relieve the Company of any obligation which it may have to Indemnitee under this Agreement or otherwise. In addition, Indemnitee shall give the Company such information and cooperation as the Company may reasonably require and as shall be within Indemnitee's power.

(d) No Presumptions; Burden of Proof. For purposes of this Agreement, the termination of any Claim by judgment, order, settlement (whether with or without court approval) or conviction, or upon a plea of *nolo contendere*, or its equivalent, shall not, of itself, create a presumption that Indemnitee did not meet any particular standard of conduct or have any particular belief or that a court has determined that indemnification is not permitted by applicable law.

(e) Notice to Insurers. If at the time of the receipt by the Company of a notice of a Claim pursuant to Section 3(c) hereof the Company has liability insurance in effect which may cover such Claim, the Company shall give prompt notice of the commencement of such Claim to the insurers in accordance with the procedures set forth in the respective policies. The Company shall thereafter take all necessary or desirable action to cause such insurers to pay, on behalf of Indemnitee, all amounts payable as a result of such Claim in accordance with the terms of such policies.

(f) Selection of Counsel. In the event the Company shall be obligated hereunder to pay the Expenses of any Claim, the Company, if appropriate, shall be entitled to assume the defense of such Claim with counsel approved by Indemnitee (such approval not to be unreasonably withheld or delayed) upon the delivery to Indemnitee of written notice of the Company's election to do so. After (i) delivery of such notice, (ii) approval of such counsel by Indemnitee and (iii) the retention of such counsel by the Company, the Company will thereafter not be liable to Indemnitee under this Agreement for any fees of counsel subsequently incurred by Indemnitee with respect to the same Claim; *provided*, that (1) Indemnitee shall have the right to employ Indemnitee's separate counsel in any such Claim at Indemnitee's expense and (2) if (A) the employment of separate counsel by Indemnitee has been previously authorized by the Company, (B) Indemnitee shall have reasonably concluded that there may be a conflict of interest between the Company and Indemnitee in the conduct of any such defense, or (C) the Company shall not continue to retain such counsel to defend such Claim, then the fees and expenses of Indemnitee's separate counsel shall be at the expense of the Company.

4. Additional Covenants.

(a) Scope. The Company hereby agrees to indemnify Indemnitee to the fullest extent permitted by Nevada law, notwithstanding that such indemnification is not specifically authorized by the other provisions of this Agreement, by the Bylaws (as now or hereafter in effect) or by the NRS. In the event of any change after the date of this Agreement in any applicable law, statute or rule which expands the right of a Nevada corporation to indemnify a member of its board of directors or an officer, employee, agent or fiduciary, it is the intent of the parties hereto that Indemnitee shall enjoy by this Agreement the greater benefits afforded by such change. In the event of any change in any applicable law, statute or rule which narrows the right of a Nevada corporation to indemnify a member of its board of directors or an officer, employee, agent or fiduciary, such change, to the extent not otherwise required by such law, statute or rule to be applied to this Agreement, shall have no effect on this Agreement or the parties' rights and obligations hereunder except as set forth in Section 9(a) hereof.

(b) Nonexclusivity. The indemnification provided by this Agreement shall be in addition to any rights to which Indemnitee may be entitled under the Bylaws (as now or hereafter in effect), any other agreement, any vote of stockholders or disinterested directors, the NRS or otherwise. The indemnification provided under this Agreement shall continue as to Indemnitee for any action taken or not taken while serving in an indemnifiable capacity even though Indemnitee may have ceased to serve in such capacity.

5. No Duplication of Payments. The Company shall not be liable under this Agreement to make any payment in connection with any Claim made against Indemnitee to the extent Indemnitee has otherwise actually received payment (under any insurance policy, provision of the Bylaws (as now or hereafter in effect) or otherwise) of the amounts otherwise indemnifiable hereunder.

6. Partial Indemnification. If Indemnitee is entitled under any provision of this Agreement to indemnification by the Company for some or a portion of Expenses incurred in connection with any Claim, but not, however, for the total amount thereof, the Company shall nevertheless indemnify Indemnitee for that portion of such Expenses to which Indemnitee is entitled.

7. Mutual Acknowledgment. Both the Company and Indemnitee acknowledge that in certain instances, federal law or applicable public policy may prohibit the Company from indemnifying its directors, officers, employees, agents or fiduciaries under this Agreement or otherwise. Indemnitee understands and acknowledges that the Company has undertaken or may be required in the future to undertake with the SEC to submit the question of indemnification to a court in certain circumstances for a determination of the Company's right under public policy to indemnify Indemnitee.

8. Liability Insurance. To the extent the Company maintains liability insurance applicable to directors, officers, employees, agents or fiduciaries, Indemnitee shall be covered by such policies in such a manner as to provide Indemnitee the same rights and benefits as are provided to the most favorably insured of the Company's directors, if Indemnitee is a director of the Company; or of the Company's officers, if Indemnitee is not a director of the Company but is an officer of the Company; or of the Company's key employees, agents or fiduciaries, if Indemnitee is not an officer or director but is a key employee, agent or fiduciary of the Company.

9. Exceptions. Notwithstanding any other provision of this Agreement, the Company shall not be obligated pursuant to the terms of this Agreement:

(a) Excluded Action or Omissions. To indemnify Indemnitee for acts, omissions or transactions from which Indemnitee may not be relieved of liability under applicable law.

(b) Claims Initiated by Indemnitee. To indemnify or advance expenses to Indemnitee with respect to Claims initiated or brought voluntarily by Indemnitee and not by way of defense, except (i) with respect to actions or proceedings brought to establish or enforce a right to indemnification under this Agreement or any other agreement or insurance policy or under the Bylaws (as now or hereafter in effect) relating to Claims for Indemnifiable Events, (ii) in specific cases if the Board of Directors of the Company has expressly approved the initiation or bringing of such Claim, or (iii) as otherwise required under the NRS, regardless of whether Indemnitee ultimately is determined to be entitled to such indemnification, advance expense payment or insurance recovery, as the case may be.

(c) Lack of Good Faith. To indemnify Indemnitee for any expenses incurred by Indemnitee with respect to any proceeding instituted by Indemnitee to enforce or interpret this Agreement, if a court of competent jurisdiction determines that each of the material assertions made by Indemnitee in such proceeding was not made in good faith or was frivolous.

(d) Violation of Law; Claims Under Section 16(b), Etc. To indemnify Indemnitee on account of any Claim with respect to (i) remuneration paid to Indemnitee if it is determined by final judgment or other final adjudication that such remuneration was in violation of law, (ii) which final judgment is rendered against Indemnitee for an accounting of profits made from the purchase and sale by Indemnitee of securities of the Company pursuant to the provisions of Section 16(b) of the Act, or similar provisions of any federal, state or local statute, or (iii) which a final adjudication establishes that Indemnitee's acts or omissions involved intentional misconduct, fraud or a knowing violation of the law and was material to the cause of action, including, without limitation, a final judgment or other final adjudication that Indemnitee defrauded or stole from the Company or converted to his or her own personal use and benefit business or properties of the Company or was otherwise knowingly dishonest.

(e) Settlement without Consent. To indemnify Indemnitee for any amounts paid in settlement of a Claim effected without the Company's written consent.

(f) Securities Act Liabilities. Any provision herein to the contrary notwithstanding, the Company shall not be obligated pursuant to the terms of this Agreement to indemnify Indemnitee or otherwise act in violation of any undertaking appearing in and required by the rules and regulations promulgated under the Securities Act, or in any registration statement filed with the SEC under the Securities Act. Indemnitee acknowledges that paragraph (h) of Item 512 of Regulation S-K currently generally requires the Company to undertake in connection with any registration statement filed under the Securities Act to submit the issue of the enforceability of Indemnitee's rights under this Agreement in connection with any liability under the Act on public policy grounds to a court of appropriate jurisdiction and to be governed by any final adjudication of such issue. Indemnitee specifically agrees that any such undertaking shall supersede the provisions of this Agreement and further agrees to be bound by any such undertaking.

10. Period of Limitations. No legal action shall be brought and no cause of action shall be asserted by or in the right of the Company against Indemnitee, Indemnitee's estate, spouse, heirs, executors or personal or legal representatives after the expiration of two years from the date of accrual of such cause of action, and any claim or cause of action of the Company shall be extinguished and deemed released unless asserted by the timely filing of a legal action within such two-year period; *provided, however*, that if any shorter period of limitations is otherwise applicable to any such cause of action, such shorter period shall govern.

11. Counterparts and Facsimile. This Agreement may be executed in one or more counterparts, including by facsimile and other electronic transmission counterparts, each of which shall constitute an original and all of which taken together shall constitute one and the same instrument.

12. Binding Effect; Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of and be enforceable by the parties hereto and their respective successors, assigns (including any direct or indirect successor by purchase, merger, consolidation or otherwise to all or substantially all of the business or assets of the Company), spouses, heirs and personal and legal representatives. The Company shall require and cause any successor (whether direct or indirect, and whether by purchase, merger, consolidation or otherwise) to all, substantially all, or a substantial part, of the business or assets of the Company, by written agreement in form and substance satisfactory to Indemnitee, to expressly assume and agree to perform this Agreement in the same manner and to the same extent that the Company would be required to perform if no such succession had taken place. The indemnification provided under this Agreement applies with respect to events occurring before or after the effective date of this Agreement, and shall continue to apply even after Indemnitee has ceased to serve the Company in any and all indemnified capacities.

13. Attorneys' Fees. In the event that any action is instituted by Indemnitee under this Agreement or under any liability insurance policies maintained by the Company to enforce or interpret any of the terms hereof or thereof, Indemnitee shall be entitled to be paid all Expenses incurred by Indemnitee with respect to such action, regardless of whether Indemnitee is ultimately successful in such action, and shall be entitled to the advancement of Expenses with respect to such action, unless as a part of such action a court of competent jurisdiction over such action determines that each of the material assertions made by Indemnitee as a basis for such action were made in bad faith or were frivolous. In the event of an action instituted by or in the name of the Company under this Agreement to enforce or interpret any of the terms of this Agreement, Indemnitee shall be entitled to be paid all Expenses incurred by Indemnitee in defense of such action (including costs and expenses incurred with respect to Indemnitee's counterclaims and cross-claims made in such action), and shall be entitled to the advancement of Expenses with respect to such action, unless as a part of such action a court having jurisdiction over such action determines that each of Indemnitee's material defenses to such action were made in bad faith or were frivolous.

14. Notice. Any notice, demand or request required or permitted to be given under this Agreement shall be in writing and shall be deemed sufficient when delivered personally or by overnight courier or sent by email, or 48 hours after being deposited in the U.S. mail as certified or registered mail with postage prepaid, addressed to the party to be notified at such party's address as set forth on the signature page, as subsequently modified by written notice, or if no address is specified on the signature page, at the most recent address set forth in the Company's books and records.

15. Duration. All agreements and obligations of the Company contained herein shall continue during the period that Indemnitee is a director or officer of the Company (or is serving at the request of the Company as a director, officer, employee, member, trustee or agent of another Enterprise) and shall continue thereafter until and terminate upon the later of: (a) ten (10) years after the date that Indemnitee shall have ceased to serve as a director or officer of the Company (or is serving at the request of the Company as a director, officer, employee, member, trustee or agent of another Enterprise) or (b) for so long as Indemnitee may be subject to any possible Claim relating to an Indemnifiable Event (including any rights of appeal thereto) and throughout the pendency of any proceeding (including any rights of appeal thereto) commenced by Indemnitee to enforce or interpret his or her rights under this Agreement, even if, in either case, he or she may have ceased to serve in such capacity at the time of any such Claim or proceeding.

16. Severability. The provisions of this Agreement shall be severable in the event that any provision or provisions hereof (including any provision within a single section, paragraph or sentence) are held by a court of competent jurisdiction to be invalid, void or otherwise unenforceable, and the remaining provisions shall remain enforceable to the fullest extent permitted by law. Furthermore, to the fullest extent possible, the provisions of this Agreement (including, without limitation, each portion of this Agreement containing any provision held to be invalid, void or otherwise unenforceable, that is not itself invalid, void or unenforceable) shall be construed so as to give effect to the intent manifested by the provision held invalid, illegal or unenforceable.

17. Choice of Law. This Agreement shall be governed by, and its provisions construed and enforced in accordance with, the laws of the State of Nevada, as applied to contracts between Nevada residents entered into and to be performed entirely within the State of Nevada, without regard to conflict of laws provisions which would otherwise require application of the substantive law of another jurisdiction.

18. Amendment and Termination. No amendment, modification, supplement, termination or cancellation of this Agreement shall be effective unless it is in writing and signed by each party hereto. No waiver of any of the provisions of this Agreement shall be deemed to be or shall constitute a waiver of any other provisions hereof (whether or not similar), nor shall such waiver constitute a continuing waiver.

19. Headings. The headings of the Sections and paragraphs of this Agreement are inserted for convenience only and shall not be deemed to constitute part of this Agreement or to affect the construction hereof.

20. Integration and Entire Agreement. This Agreement sets forth the entire understanding between the parties hereto and supersedes and merges all previous written and oral negotiations, commitments, understandings and agreements relating to the subject matter hereof between the parties hereto.

21. No Construction as Employment Agreement. Nothing contained in this Agreement shall be construed as giving Indemnitee any right to be retained in the employ of the Company or any of its subsidiaries or affiliated entities.

22. Company Position. The Company shall be precluded from asserting, in any proceeding brought for purposes of establishing, enforcing or interpreting any right to indemnification under this Agreement, that the procedures and presumptions of this Agreement are not valid, binding and enforceable and shall stipulate in any such court that the Company is bound by all the provisions of this Agreement and is precluded from making any assertion to the contrary.

23. Subrogation. In the event of payment under this Agreement, the Company shall be subrogated, to the extent of such payment, to all of the rights of recovery of Indemnitee, who shall execute all documents required and shall do all acts as may be necessary to secure such rights and to enable the Company to effectively bring suit to enforce such rights.

[Signature Page Follows]

IN WITNESS WHEREOF, the parties hereto have executed this Indemnification Agreement as of the date first above written.

THE COMPANY:

TAPIMMUNE, INC.

By: _____
(Signature)

Name: _____
Title: _____

Address: 5 WEST FORSYTH STREET
SUITE 200
JACKSONVILLE FL 32202

AGREED TO AND ACCEPTED:

INDEMNITEE:

(PRINT NAME)

(Signature)

Address:

Email: _____

[Signature Page of Indemnification Agreement]

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statement of TapImmune Inc. on Form S-3 File No. 333-215258 of our report dated March 23, 2018, which includes an explanatory paragraph as to the Company's ability to continue as a going concern, with respect to our audits of the consolidated financial statements of TapImmune, Inc. as of December 31, 2017 and 2016 and for the years ended, which report is included in this Annual Report on Form 10-K of TapImmune Inc. for the year ended December 31, 2017.

/s/ Marcum LLP

New York, NY

March 23, 2018

CERTIFICATION PURSUANT TO SECTION 302 OF SARBANES-OXLEY ACT OF 2002

I, Peter Hoang, certify that:

1. I have reviewed this Annual Report on Form 10-K of TapImmune 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 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(s) 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 assurances regarding the reliability of financial reporting in 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;
 - 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 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(s) 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 23, 2018

/s/ Peter Hoang

By: **Peter Hoang**

Title: Chief Executive Officer

CERTIFICATION PURSUANT TO SECTION 302 OF SARBANES-OXLEY ACT OF 2002

I, Michael J. Loiacono, certify that:

1. I have reviewed this Annual Report on Form 10-K of TapImmune 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 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(s) 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 assurances regarding the reliability of financial reporting in 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;
 - 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 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(s) 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 23, 2018

/s/ Michael J. Loiacono

By: **Michael J. Loiacono**

Title: Chief Financial Officer and Chief Accounting Officer

**CERTIFICATION 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 TapImmune, Inc. (the "Company") on Form 10-K for the period ended December 31, 2017 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Peter Hoang, Principal Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in this Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 23, 2018

/s/ Peter Hoang

Peter Hoang
Chief Executive Officer

**CERTIFICATION 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 TapImmune, Inc. (the "Company") on Form 10-K for the period ended December 31, 2017 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Michael J. Loiacono, Principal Accounting Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in this Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 23, 2018

/s/ Michael J. Loiacono

Michael J. Loiacono
Chief Financial Officer and Chief Accounting Officer
