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
or

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

For the transition period from to

Commission file number: 001-35560

IMMUNOCELLULAR THERAPEUTICS, LTD.

(Exact name of registrant as specified in its charter)

Delaware	**93-1301885**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification Number)**
30721 Russell Ranch Road, Suite 140 Westlake Village, California	**91362**
(Address of principal executive offices)	**(Zip code)**

Registrant's telephone number, including area code: (818) 264-2300

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

Title of each class	**Name of each exchange on which registered**
Common Stock, $0.0001 par value	**NYSE AMERICAN**

Securities registered pursuant to Section 12(g) of the Exchange 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 15(d) of the Exchange Act. ☐ Yes ☒ No

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

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

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

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

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☒
Emerging growth company	☐		

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act): ☐ Yes ☒ No

The aggregate market value of the common stock held by non-affiliates of the registrant as of June 30, 2017 was approximately $3,010,000.

There were 41,928,356 shares of the registrant's common stock issued as of March 1, 2018.

Documents incorporated by reference: None

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"SAFE HARBOR" STATEMENT

From time to time, we make oral and written statements that may constitute "forward-looking statements" (rather than historical facts) as defined in the Private Securities Litigation Reform Act of 1995 or by the Securities and Exchange Commission (the "SEC") in its rules, regulations and releases, including Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). We desire to take advantage of the "safe harbor" provisions in the Private Securities Litigation Reform Act of 1995 for forward-looking statements made from time to time, including the forward-looking statements made in this Annual Report, as well as those made in our other filings with the SEC.

All statements in this Annual Report, including under the captions "Business," "Risk Factors," and "Management's Discussion and Analysis of Financial Condition and Results of Operations," other than statements of historical fact are forward-looking statements for purposes of these provisions. Examples of these statements include, but are not limited to, the plans, strategies and objectives of management and our board of directors with respect to the exploration and review of strategic alternatives for the company; our current views with respect to our business strategy, business plan and research and development activities; the progress of our product development programs, including clinical testing and the timing of commencement and results thereof; our research and development expenses; our future financial results and sufficiency of our cash resources and need for additional capital. These statements include forward-looking statements both with respect to us, specifically, and the biotechnology industry, in general. In some cases, forward-looking statements can be identified by the use of terminology such as "may," "will," "expects," "plans," "anticipates," "estimates," "potential" or "could" or the negative thereof or other comparable terminology. Although we believe that the expectations reflected in the forward-looking statements contained herein are reasonable, there can be no assurance that such expectations or any of the forward-looking statements will prove to be correct, and actual results could differ materially from those projected or assumed in the forward-looking statements.

All forward-looking statements involve inherent risks and uncertainties, and there are or will be important factors that could cause actual results to differ materially from those indicated in these statements. We believe that these factors include, but are not limited to, those factors set forth in this Annual Report under the captions "Business," "Risk Factors," and "Management's Discussion and Analysis of Financial Condition and Results of Operations," all of which you should review carefully. If one or more of these or other risks or uncertainties materialize, or if our underlying assumptions prove to be incorrect, actual results may vary materially from what we anticipate. Please consider our forward-looking statements in light of those risks as you read this Annual Report. Except as required by law, we undertake no obligation to publicly update or review any forward-looking statement, whether as a result of new information, future developments or otherwise.

PART I.

Throughout this Annual Report, the terms "we," "us," "our," "our company," "Company" and "the Registrant" refer to ImmunoCellular Therapeutics, Ltd., a Delaware corporation and its subsidiaries.

Item 1. Business

ImmunoCellular Therapeutics, Ltd. is a clinical-stage biotechnology company that is developing immune-based therapies for the treatment of cancers. Immunotherapy is an emerging approach to treating cancer in which a patient's own immune system is stimulated to target tumor antigens, which the immune system uses to identify foreign bodies. While some other cancer immunotherapies target only a single cancer antigen, our technology can elicit an immune response against several antigens simultaneously. Our clinical stage cancer immunotherapy programs are also distinguished by the fact that they target cancer stem cells (CSCs), which are the primary drivers of tumor growth and disease recurrence.

Review of Strategic Alternatives

We expect to devote substantial time and resources to exploring strategic alternatives that our board of directors believes will maximize stockholder value. Our consideration of strategic alternatives includes, but is not limited to, the potential for an acquisition, merger, business combination, licensing and/or other strategic transaction involving the company. Despite devoting significant efforts to identify and evaluate potential strategic transactions, we may not be successful in completing a transaction. Further, even if a strategic transaction is completed, it ultimately may not deliver the anticipated benefits or enhance stockholder value.

Research Program

We are developing Stem-to-T-Cell immunotherapies for the treatment of cancer based on rights to novel technology we exclusively licensed from the California Institute of Technology (Caltech). The technology originated from the labs of David Baltimore, Ph.D., Nobel Laureate and President Emeritus at Caltech, and utilizes the patient's own hematopoietic stem cells to create antigen-specific killer T cells to treat cancer. We plan to utilize this technology to expand and complement our DC-based cancer immunotherapy platform, with the goal of developing new immunotherapies that kill cancer cells in a highly directed and specific manner and that can function as monotherapies or in combination therapy approaches.

Caltech's technology potentially addresses the challenge, and limitation, that other immunotherapies, including TCR (T cell receptor) technologies, have faced of generating a limited immune response and having an unknown persistence in the patient's body. We believe that by inserting DNA that encodes T cell receptors into hematopoietic stem cells rather than into T cells, the immune response can be transformed into a durable and more potent response that could effectively treat solid tumors. This observation has been verified in animal models by investigators at Caltech.

In March 2017, we announced the successful completion of the first milestone of our Stem-to-T-cell program, the sequencing of a selected TCR, which will become the basis for the product development program. In November 2015, we entered into a sponsored research agreement with The University of Texas MD Anderson Cancer Center with the goal of identifying a TCR sequence. In addition, in 2015 we acquired an option from Stanford University to evaluate certain technology related to the identification of TCRs that could prove useful in supporting our Stem-to-T-Cell research efforts. In March 2017, a TCR sequence for our Stem-to-T-Cell program became available.

In December 2017, we announced that we successfully packaged a TCR DNA sequence into a lentiviral vector, which was then used to transfect human hematopoietic stem cells and initiated in vitro proof of concept work.

In addition, we entered into a sponsored research agreement with the University of Maryland, Baltimore (UMB) in January 2016. As part of this collaboration, UMB researchers are undertaking three projects to explore potential enhancements to our dendritic cell and Stem-to-T-Cell immunotherapy platforms.

Clinical Product Candidates

Active Immunotherapy

Dendritic cells (DCs) are cells responsible for antigen processing and presentation to the immune system and play a central role in the body's immune response. They act as first responders that initiate a T cell response to fight infections or foreign bodies. DCs do this by recognizing, processing and presenting foreign antigens to the T cells. Thus, they are powerful potentiators of acquired immunity through an effective presentation of the cancer antigens to T cells, which subsequently mediate the killing of cancer cells. The goal of DC-based immunotherapies is to (i) make use of and enhance the DCs ability to trigger a T cell response and (ii) stimulate DCs to focus the T cell response to specifically target and destroy cancer cells.

DCs normally do not effectively target malignant tumors, since they do not recognize the tumor as a foreign body that needs to be eliminated. Also, they are typically not present in sufficient numbers to permit an adequately potent immune

response to fight cancer. DC therapy typically involves harvesting peripheral blood mononuclear cells (PBMCs) from a patient, culturing them and processing them in a laboratory to produce a sufficient number of highly potent DCs. The DCs are then cultured with tumor-associated antigens and injected back into the patient, where they can signal T cells to seek out and destroy cancer cells that express the tumor-associated antigens.

ICT-107

ICT-107 is a DC immunotherapy for the treatment of newly diagnosed glioblastoma multiforme (GBM), the most common and lethal type of brain cancer. The American Cancer Society (ACS) estimates that about 23,800 malignant tumors of the brain and spinal cord will be diagnosed in the U.S. in 2017. GBM is the most prevalent and aggressive form of brain cancer. Over 10,000 new patients are diagnosed with GBM in the U.S. each year. Despite advances in surgery, radiation, and chemotherapy, recurrence is almost a certainty, occurring on average within 6.9 months. The median survival time for newly diagnosed GBM patients is only 14.6 months, and fewer than 10% of these patients live more than five years.

ICT-107 is a DC immunotherapy that targets six different tumor-associated antigens that are found on patients' tumor cells; at least four of the six antigens are highly expressed on cancer stem cells. The immunotherapy is intended to be used subsequent to conventional therapy or concomitantly with chemotherapy in patients with newly diagnosed GBM. Results from a phase 1 clinical trial at Cedars-Sinai Medical Center in Los Angeles showed that ICT-107 was well tolerated, with no significant adverse events reported. As of the last update in March of 2016, six of 16 patients with newly diagnosed GBM treated with ICT-107 continue to survive more than seven years beyond first treatment. Five of the 16 patients were disease free over five years from first treatment. The median PFS in the 16 newly diagnosed patients enrolled in the trial was 16.9 months, and median OS was 38.4 months.

In June 2010, ICT-107 was granted Orphan Drug status by the FDA, making the product candidate eligible, under certain circumstances, for marketing exclusivity and other potential benefits.

ICT-107 completed phase 2 testing with results reported in December 2013. Additional updated results were reported in June 2014 and October 2014. In October 2015, overall survival (OS) was additionally updated and reported. The phase 2 clinical trial was designed as a double-blind, placebo-controlled (2:1 randomized), multicenter evaluation of the safety and efficacy of ICT-107 in patients with newly diagnosed GBM. From January 2011 until September 2012, 124 patients were randomized to standard of care treatment plus ICT-107 or standard of care plus placebo (i.e. control). The most recent results are summarized in Table 1.

Table 1

Overall Survival*		**Median Overall Survival - in Months**				
Population	**Patients Randomized**	**Treatment Group**	**Placebo Group**	**Difference**	**P Value**	**HR Ratio**
Intent to treat (ITT)	124	18.3	16.7	1.6	0.436	0.846
Per Protocol (PP) HLA-A2						
MGMT Methylated	31	37.7	23.9	13.8	0.645	0.800
MGMT Unmethylated	38	15.8	11.8	4.0	0.326	0.704

Progression Free Survival*		**Median Progression Free Survival - in Months**				
Population	**Patients Randomized**	**Treatment Group**	**Placebo Group**	**Difference**	**P Value**	**HR Ratio**
ITT	124	11.4	10.1	1.3	0.033	0.640
PP HLA-A2						
MGMT Methylated	31	24.1	8.5	15.6	0.004	0.257
MGMT Unmethylated	38	10.5	6.0	4.0	0.364	0.720

* Overall survival data from October 2015; progression free survival from October 2014.

Patients in the phase 2 study were HLA-A1, A2, or dual A1/A2. HLA type refers to a person's human leukocyte antigen status which corresponds to a family of genes that regulate the immune system. Though the ICT-107 immunotherapy is designed for all three of these HLA types, the most benefit and best immune responses were observed in patients who were HLA-A2 positive (about 50% of the GBM population in the US and Europe). Thus, the phase 3 includes only patients who are HLA-A2 positive. We analyzed HLA-A2 positive patients according to their MGMT gene status (unmethylated or methylated) which is a known predictor of responsiveness to standard of care chemotherapy. MGMT is a gene involved with DNA repair.

As the standard of care chemotherapy in GBM works by damaging DNA, an active repair mechanism diminishes or precludes benefit from chemotherapy. MGMT unmethylated tumor cells can repair DNA damage while MGMT methylated cells cannot. While the subgroups were small in size, and not powered to show statistical significance, the number advantages in favor of the ICT-107 treated patients were shown to be large and potentially clinically meaningful. ICT-107 was generally well tolerated, with no imbalance in adverse events between the treated and control groups.

We decided to pursue phase 3 testing of ICT-107 in HLA-A2 patients on the basis of the updated phase 2 ICT-107 trial data, post-phase 2 discussions with U.S. and European regulators and consultation with GBM key opinion leaders.

Patient screening began in November 2015 in the U.S. As of December 31, 2016, we had 64 active trial sites in the U.S. and one in Canada. Furthermore, 293 patients had been screened, 37 of whom had successful manufacturing runs to produce ICT-107 and control. The first patient in the trial was treated on June 7, 2016.

The phase 3 trial of ICT-107 was terminated in June 2017. At the time, 53 patients had been randomized to treatment. Those patients were given the option of continuing treatment with ICT-107 through investigator-sponsored studies at the individual clinical sites. In all, 34 patients and 17 clinical sites elected to participate in these investigator-sponsored studies.

In June 2017, we determined that we were unable to secure sufficient additional financial resources to complete the phase 3 registration trial of ICT-107. As a result, we have terminated further patient randomization in the ICT-107 trial while we continue to seek a collaborative arrangement or acquisition of our ICT-107 program. The termination of the phase 3 registration trial of ICT-107 is expected to reduce the amount of cash used in our operations.

ICT-140

The ACS estimates that about 22,440 women in the U.S. will receive a new diagnosis of ovarian cancer and about 14,080 will die from ovarian cancer in 2017. The National Cancer Institute reports that ovarian cancer is the ninth leading cause of cancer death in the U.S. for women and the lifetime risk is approximately 1.4%. By contrast, according to the most recent estimates 39% of women who inherit a harmful BRCA1 mutation and 11% to 17% of women who inherit a harmful BRCA2 mutation will develop ovarian cancer by age 70.

Ovarian cancer usually spreads via local shedding into the peritoneal cavity followed by implantation on the peritoneum and via local invasion of bowel and bladder. The incidence of positive nodes at primary surgery has been reported to be as much as 24% in patients with stage I disease, 50% in patients with stage II disease, 74% in patients with stage III disease and 73% in patients with stage IV disease. The five-year survival rate for all stages of ovarian cancer is approximately 44%. For cases where a diagnosis is made early in the disease, when the cancer is still confined to the primary site, the five-year survival rate is 92%. However, only 15% of all ovarian cancers are found at this early stage.

Many ovarian cancers are spontaneously invaded by T cells, and patients whose tumors have tumor-infiltrating T cells survive longer. As a result, we believe that cancer immunotherapies may improve the survival rate of patients with ovarian cancer.

ICT-140 is a DC immunotherapy that targets seven tumor-associated antigens expressed on ovarian cancer cells. Some of the antigens utilized in ICT-140 are also used in ICT-107. We filed an investigational new drug (IND) application for ICT-140 at the end of 2012 and the IND was allowed by the FDA in January 2013. We subsequently twice modified the design of the trial and amended the IND to reflect these changes in May 2013 and September 2014. These amendments were allowed by the FDA shortly after the submissions. During the interim time period, we upgraded our generalized DC immunotherapy manufacturing process to bring it to the level of phase 3 and commercial ready. We plan to use this improved process to manufacture clinical supplies for the ICT-140 trial. Currently, we are postponing the initiation of this trial until we find a partner to share expenses.

ICT-121

We and Cedars-Sinai Medical Center have discovered antigen peptides that can elicit a T cell immune response against CD133, a marker that is commonly present on CSCs. CD133-positive CSCs have been identified in a number of different cancers, including gliomas, colon cancer and pancreatic cancer.

ICT-121 specifically targets CD133, a CSC marker that is overexpressed in a wide variety of solid tumors, including ovarian, pancreatic, and breast cancers. We began screening patients in September 2013 for a single-site phase 1 trial in recurrent GBM. Originally, it was our intention to enroll 20 patients at one site. However, during 2014, we determined that enrollment could be accelerated if additional sites were added to the study. In 2015 we added five sites and made modifications in the screening criteria to facilitate enrollment. As of July 21, 2016, the trial was fully enrolled. The trial was completed in the first quarter of 2017 and preliminary results were presented at ASCO in June 2017. Those results are summarized as follows:

- ICT-121 is generally safe and well-tolerated
- Six of twenty treated patients were still alive as of the May 2017 and these patients will be followed for survival

- While the diversity (disease severity) of the patient population resulting from the protocol amendment makes interpretation of survival data difficult the results are encouraging
- The immune response data (not yet available) will be used to assess effectiveness of ICT-121 in inducing formation of cytotoxic T cells specific for the CD-133 target

We are considering our options on how to further develop ICT-121.

Manufacturing

For both our research program and clinical product candidates, autologous cell-based therapies must be manufactured separately for each patient. Consequently, the manufacturing costs are typically higher than other types of therapies that are not patient-specific. Our DC immunotherapy manufacturing process produces multiple doses for a patient from a single manufacturing run utilizing a single apheresis from the patient. Each manufacturing run takes three days to complete. In addition, the immunotherapy is stored frozen in liquid nitrogen making the logistics of shipping and administration to the patient easier than those for cell therapies that must be shipped fresh and administered to the patient within hours of manufacture.

Future Financial Requirements

While we believe that we have a promising technology portfolio of multiple clinical-stage candidates, we do not currently anticipate that we will generate any revenues from either product sales or licensing in the foreseeable future. The estimated cost of completing the development of any of the current or potential immunotherapy candidates will require us to raise additional capital, generate additional capital from the uncertain exercise of outstanding warrants, or enter into collaboration agreements with third parties. There can be no assurances that we will be able to obtain any additional funding, or if such funding is available, that the terms will be favorable. In addition, collaborations with third parties may not be available to us and may require us to surrender rights to many of our products, which may reduce the potential share of returns in any licensed products. If we are unable to raise sufficient capital or secure collaborations with third parties, we will not be able to further develop our product candidates.

Recent Developments

We are undertaking an evaluation of strategic alternatives for our immuno-oncology research and development pipeline and technology platform, which may include a potential merger, consolidation, reorganization or other business combination, as well as the sale of the company or the company's assets. While we evaluate strategic alternatives, we plan to continue to advance our research and development strategies.

In February 2018, we engaged Ladenburg Thalmann & Company, Inc. to identify and introduce us to prospective financial investors, strategic corporate investors, acquirers of equity or assets, merger partners and/or other potential acquirers.

Intellectual Property Agreements

Cedars-Sinai Agreements

In May 2015, we entered into an Amended and Restated Exclusive License Agreement (the Amended License Agreement) with Cedars-Sinai. Pursuant to the Amended License Agreement, we acquired an exclusive, worldwide license from Cedars-Sinai to certain patent rights and technology developed in the course of research performed at Cedars-Sinai into the diagnosis of diseases and disorders in humans and the prevention and treatment of disorders in humans utilizing cellular therapies, including DC-based immunotherapies for brain tumors and other cancers and neurodegenerative disorders. Under the Amended License Agreement, we will have exclusive rights to, among other things, develop, use, manufacture, sell and grant sublicenses to the licensed technology.

We have agreed to pay Cedars-Sinai specified milestone payments related to the development and commercialization of ICT-107, ICT-121 and ICT-140. Among other milestone payments, we are required to pay to Cedars-Sinai specified milestone payments upon commencement of the first phase 3 clinical trial for our first product and upon first commercial sale of our first product. Upon the commencement of the first phase 3 clinical trial for ICT-107, which occurred in January 2016, we paid Cedars-Sinai the required milestone payment of $100,000. Upon the first commercial sale of our first product, the required milestone payments will be $1.0 million. We will pay Cedars-Sinai single digit percentages of gross revenues from the sales of products and high-single digit to low-double digit percentages of our sublicensing income based on the licensed technology.

The Amended License Agreement will terminate on a country-by-country basis on the expiration date of the last-to-expire licensed patent right in each such country. Either party may terminate the Amended License Agreement in the event of the other party's material breach of its obligations under the Agreement if such breach remains uncured 60 days after such party's receipt of written notice of such breach. Cedars-Sinai may also terminate the Amended License Agreement upon 30 days' written notice to us that a required payment by us to Cedars-Sinai under the Amended License Agreement is delinquent.

We have also entered into various sponsored research agreements with Cedars-Sinai and has paid an aggregate of approximately $1.2 million. The last agreement concluded on March 19, 2014 at an incremental cost of $126,237. As of December 31, 2017, Cedars-Sinai is not performing any research activities on behalf of the Company.

Dr. John Yu, a co-inventor of our cellular-based therapy technology who serves on our Board of Directors, is employed by Cedars-Sinai, which may assert that future intellectual property generated by Dr. Yu belongs to that institution rather than to us, and we may be required to seek a license from Cedars-Sinai for any such rights.

The Johns Hopkins University Licensing Agreement

In February 2012, we entered into a license agreement with The Johns Hopkins University (JHU), pursuant to which we received an exclusive, worldwide license to JHU's rights in and to certain technology related to mesothelin-specific cancer immunotherapies. The license covers the application of this technology for all mesothelin peptide-based immunotherapies for cancer treatment and prevention, except bacteria-based, viral vector-based and nucleic acid-based immunotherapies. Unless earlier terminated, the term of the license extends in each country until the later of the expiration of the last patent related to the licensed technology in that country or ten years after the effective date of the license agreement. In order to maintain our license rights under the license agreement, we are required to meet certain diligence milestones and timelines.

Pursuant to the license agreement, we paid an upfront licensing fee in the low hundreds of thousands of dollars, payable half in cash and half in shares of common stock. We are obligated to pay milestone license fees upon completion of specified milestones totaling single digit millions of dollars if all milestones are met, customary royalties based on a low single digit percentage of net sales and sublicensing payments shared at a low double digit percentage, as well as annual minimum royalties increasing over time and ranging from low tens of thousands to low hundreds of thousands of dollars. We will also be responsible for reimbursing JHU for reasonable costs associated with the preparation, filing, maintenance and prosecution of the technology subject to the license. In September 2013, we entered into Amendment No. 1 to the license agreement that updated certain milestones. In August 2015, we entered into a Second Amendment to Exclusive License Agreement that amended certain sections of the license agreement and further updated certain milestones.

California Institute of Technology

On September 9, 2014, we entered into an Exclusive License Agreement with the California Institute of Technology (Caltech) under which we acquired exclusive rights to novel technology for the development of certain stem cell treatments that are potentially capable of producing antigen specific T cell killing of cancer cells.

Pursuant to the License Agreement, we agreed to pay a one-time license fee, a minimum annual royalty based on a low single digit percentage of net revenues and an annual maintenance fee in the low tens of thousands of dollars. In addition, we have agreed to make certain milestone payments upon completion of specified milestones.

Competition

The biopharmaceutical industry is characterized by intense competition and significant technological advancements. Many companies, research institutions, and universities are conducting research and development in a number of areas similar to those that we focus on. The development of new products could compete with and be superior to our product candidates.

Many of the companies with which we compete have substantially greater financial, technical, manufacturing, marketing, distribution and other resources. A number of these companies may have or may develop technologies for products that could be superior to ours. We expect technological developments in the biopharmaceutical and related fields to occur at a rapid rate, and believe competition will intensify as these fields advance. Accordingly, we will be required to devote substantial resources and efforts to research and development activities in order to potentially achieve and maintain a competitive position. Products that we develop may become obsolete before we are able to market them or to recover all or any portion of our research and development expenses. We may be competing with companies that have significantly more experience in undertaking preclinical testing and human clinical trials with new or improved therapeutic products and obtaining regulatory approvals of such products. A number of these companies already market and may be in advanced phases of clinical testing of various drugs that may compete with our product candidates or any future product candidates that we may develop. Competitors may develop or commercialize products more rapidly than we do, or that have significant advantages over products we develop. Therefore, our competitors may be more successful in commercializing their products, which could adversely affect our competitive position and business.

In addition to sipuleucel-T and ipilimumab, which have been approved for sale by the FDA, several major biopharmaceutical companies, including Abbvie, Boehringer Ingelheim Pharma GmbH & Co., Gilead, Janssen Pharmaceutical Companies of Johnson & Johnson, Pfizer Inc., Genentech, Inc. (a member of the Roche Group), Amgen Inc., Merck & Co., Inc., Novartis AG, GlaxoSmithKline plc, Celgene Corporation and Bristol-Myers Squibb Company, smaller biotechnology companies, such as Oncothyreon Inc., Galena Biopharma, Inc., Agenus Inc., Bavarian Nordic A/S, Kite Pharma, Inc., Juno

Therapeutics, Inc. and Immunovaccine Inc., are developing cancer immunotherapies. A number of immunotherapy companies, including Northwest Biotherapeutics, Inc., Prima Biomed Ltd and DC Prime B.V., also utilize DCs for their therapeutic cancer immunotherapies.

In addition to the previously mentioned companies developing cancer immunotherapies, there are also several pharmaceutical companies, including OncoMed Pharmaceuticals, Inc., Verastem, Inc., Stemline Therapeutics, Inc. and Infinity Pharmaceuticals, Inc., that are pursuing drugs that target CSCs. Stemline is currently developing a peptide treatment, SL-701, for brain cancer.

Colleges, universities, governmental agencies and other public and private research organizations are becoming more active in seeking patent protection and licensing arrangements to collect royalties for use of technologies that they have developed, some of which may directly compete with our product candidates or any future product candidates that we may develop. Governments of a number of foreign countries are aggressively investing in cellular therapy research and promoting such research by public and private institutions within those countries. Domestic and foreign institutions and governmental agencies, along with pharmaceutical and specialized biotechnology companies, can be expected to compete with us in recruiting qualified scientific personnel.

Our competitive position will be significantly impacted by the following factors, among others:

- our ability to obtain FDA marketing approval for our product candidates on a timely basis;
- the level of acceptance of our products by physicians, compared to those of competing products or therapies;
- our ability to have our products manufactured on a commercial scale;
- the effectiveness of sales and marketing efforts on behalf of our products;
- our ability to meet demand for our products;
- our ability to secure insurance reimbursement for our products;
- the price of our products relative to competing products or therapies;
- our ability to recruit and retain appropriate management and scientific personnel; and
- our ability to develop a commercial-scale research and development, manufacturing and marketing infrastructure, either on our own or with one or more future strategic partners.

Company Information

We filed our original Certificate of Incorporation with the Secretary of State of Delaware on March 20, 1987 under the name Redwing Capital Corp. On June 16, 1989, we changed our name to Patco Industries, Ltd. and conducted an unrelated business under that name until 1994. On January 30, 2006, we amended our Certificate of Incorporation to change our name to Optical Molecular Imaging, Inc. in connection with our merger on January 31, 2006 with Spectral Molecular Imaging, Inc. The acquisition was accounted for as a reverse merger, with Spectral Molecular Imaging deemed to be the accounting acquirer and Optical Molecular Imaging deemed to be the legal acquirer. As such, the consolidated financial statements herein reflect the historical activity of Spectral Molecular Imaging since its inception on February 25, 2004. On November 2, 2006, we amended our Certificate of Incorporation to change our name to ImmunoCellular Therapeutics, Ltd. to reflect the disposition of our Spectral Molecular Imaging subsidiary and the acquisition of our cellular-based technology from Cedars-Sinai.

Our principal executive offices are located at 30721 Russell Ranch Road, Suite 140, Westlake Village, California 91362, and our telephone number at that address is (818) 264-2300.

Employees

As of December 31, 2017, we had four employees. In addition, we have a number of consulting agreements with individuals and groups to support clinical development, regulatory affairs, investor relations and business development. We outsource all of our drug discovery research, process development, manufacturing and clinical development to third parties with expertise in those areas.

Government Regulation

The United States and other developed countries extensively regulate the preclinical and clinical testing, manufacturing, labeling, storage, record-keeping, advertising, promotion, export, marketing and distribution of drugs and

biologic products. The FDA, under the Federal Food, Drug, and Cosmetic Act, the Public Health Service Act and other federal statutes and regulations, regulates pharmaceutical and biologic products.

To obtain approval of our product candidates from the FDA, we must, among other requirements, submit data supporting safety and efficacy, or for biologics, safety, purity and potency, for the intended indication as well as detailed information on the manufacture and composition of the product candidate. In most cases, this will require extensive laboratory tests and preclinical and clinical trials. The collection of these data, as well as the preparation of applications for review by the FDA involve significant time and expense. The FDA also may require post-marketing testing to monitor the safety and efficacy of approved products or place conditions on any approvals that could restrict the therapeutic claims and commercial applications of these products. Regulatory authorities may withdraw product approvals if we fail to comply with regulatory standards or if we encounter problems at any time following initial marketing of our products.

The first stage of the FDA approval process for a new biologic or drug involves completion of preclinical studies and the submission of the results of these studies to the FDA. This data, together with proposed clinical protocols, manufacturing information, analytical data and other information submitted to the FDA, in an investigational new drug application (IND), must become effective before human clinical trials may commence. Preclinical studies generally involve FDA regulated laboratory evaluation of product characteristics and animal studies to assess the efficacy and safety of the product candidate.

After the IND becomes effective, a company may commence human clinical trials. However, the FDA may place the IND on clinical hold at any time, which requires that issues concerning safety of the product or trial be resolved to the FDA's satisfaction prior to resuming activities under the IND. Human clinical trials are typically conducted in three sequential phases, but the phases may overlap. Phase 1 trials consist of testing of the product candidate in a small number of patients or healthy volunteers, primarily for safety at one or more doses. Phase 1 trials in cancer are often conducted with patients who are not healthy and who have end-stage or metastatic cancer. Phase 2 trials, in addition to safety, evaluate the efficacy of the product candidate in a patient population somewhat larger than phase 1 trials. Phase 3 trials typically involve additional testing for safety and clinical efficacy in an expanded population at multiple test sites. A company must submit to the FDA a clinical protocol, accompanied by the approval of the Institutional Review Boards at the institutions participating in the trials, prior to commencement of each clinical trial. Before proceeding with a phase 3 clinical trial, sponsors may seek a written agreement from the FDA regarding the design, size, and conduct of a clinical trial. This is known as a Special Protocol Assessment, or SPA. SPAs help establish up front agreement with the FDA about the adequacy of the design of a clinical trial to support a regulatory approval, but the agreement is not binding if new circumstances arise. In addition, even if a SPA remains in place and the trial meets its endpoints with statistical significance, the FDA could determine that the overall balance of risks and benefits for the product candidate is not adequate to support approval, or only justifies approval for a narrow set of clinical uses or approval with restricted distribution or other burdensome post-approval requirements or limitations.

To obtain FDA marketing authorization, a company must submit to the FDA the results of the preclinical and clinical testing, together with, among other things, detailed information on the manufacture and composition of the product candidate, in the form of a new drug application (NDA) or, in the case of a biologic, like DC-based immunotherapies for neurological disorders, a biologics license application (BLA). The FDA has sixty days after the sponsor's submission of an NDA or BLA to file the application and begin the user fee review period. Unless an exemption applies, each BLA we submit will be required to be accompanied by a substantial user fee payment.

The amount of time taken by the FDA for approval of an NDA or BLA will depend upon a number of factors, including whether the product candidate qualifies for priority review, the quality of the submission and studies presented, the potential contribution that the compound will make in improving the treatment of the disease in question, and the workload at the FDA. The FDA has committed to reviewing standard BLAs in 10 months from filing and priority BLAs in six months from filing, but the actual time it takes to review any BLA that we may submit could be substantially longer.

The FDA may, during its review of an NDA or BLA, ask for additional test data that may require the conduct of additional clinical trials. If the FDA does ultimately approve the product candidate for marketing, it may require post-marketing testing to monitor the safety and effectiveness of the product. The FDA also may in some circumstances impose restrictions on the use of the product, such as a Risk Evaluation and Mitigation Strategy, or REMS, which may be difficult and expensive to administer and may require prior approval of promotional materials.

We will also be subject to a variety of regulations governing clinical trials and sales of our products outside the United States. Whether or not FDA approval has been obtained, approval of a product candidate by the comparable regulatory authorities of foreign countries and regions must be obtained prior to the commencement of marketing the product in those countries. The approval process varies from one regulatory authority to another and the time may be longer or shorter than that required for FDA approval. In the European Union, Canada and Australia, regulatory requirements and approval processes are similar, in principle, to those in the United States.

Before approving a BLA, the FDA will inspect the facilities at which the product is manufactured and will not approve the product unless the manufacturing facilities are in compliance with the FDA's cGMP, which are regulations that govern the

manufacture, holding and distribution of a product. Manufacturers of biologics also must comply with the FDA's general biological product standards. Following approval, the FDA periodically inspects drug and biologic manufacturing facilities to ensure continued compliance with the good manufacturing practices regulations. We must ensure that any third-party manufacturers continue to comply with those requirements. Failure to comply with these requirements subjects the manufacturer to possible legal or regulatory action, such as suspension of manufacturing or recall or seizure of product. Adverse patient experiences with the product must be reported to the FDA and could result in the imposition of marketing restrictions through labeling changes or market removal. Product approvals may be withdrawn if compliance with regulatory requirements is not maintained or if problems concerning safety or efficacy of the product occur following approval.

The labeling, advertising, promotion, marketing and distribution of a drug or biologic product also must comply with FDA and Federal Trade Commission, requirements, which include, among others, standards and regulations for off-label promotion, industry sponsored scientific and educational activities, promotional activities involving the internet, and direct-to-consumer advertising. We also will be subject to a variety of federal, state and local regulations relating to the use, handling, storage and disposal of hazardous materials, including chemicals and radioactive and biological materials. In addition, we will be subject to various laws and regulations governing laboratory practices and the experimental use of animals. In each of these areas, as above, the FDA has broad regulatory and enforcement powers, including the ability to levy fines and civil penalties, suspend or delay issuance of product approvals, seize or recall products, and deny or withdraw approvals.

We also will be subject to federal regulation by the Occupational Safety and Health Administration and the Environmental Protection Agency and to regulation under the Toxic Substances Control Act, the Resource Conservation and Recovery Act and other federal and state regulatory statutes, and may in the future be subject to other federal, state or local regulations.

We may be subject to data privacy and security regulations by both the federal government and the states in which we conduct our business. The Health Insurance Portability and Accountability Act of 1996 (HIPAA), as amended by the Health Information Technology for Economic and Clinical Health Act, or HITECH, and its implementing regulations, imposes requirements relating to the privacy, security and transmission of individually identifiable health information. Among other things, HITECH makes HIPAA's privacy and security standards directly applicable to business associates independent contractors or agents of covered entities that receive or obtain protected health information in connection with providing a service on behalf of a covered entity. HITECH also created four new tiers of civil monetary penalties, amended HIPAA to make civil and criminal penalties directly applicable to business associates, and gave state attorneys general new authority to file civil actions for damages or injunctions in federal courts to enforce the federal HIPAA laws and seek attorneys' fees and costs associated with pursuing federal civil actions. In addition, state laws govern the privacy and security of health information in specified circumstances, many of which differ from each other in significant ways and may not have the same effect, thus complicating compliance efforts.

Orphan Drug Act

Under the Orphan Drug Act, the FDA may grant orphan designation to a drug or biologic intended to treat a rare disease or condition, which is generally a disease or condition that affects fewer than 200,000 individuals in the United States, or more than 200,000 individuals in the United States and for which there is no reasonable expectation that the cost of developing and making available in the United States a drug or biologic for this type of disease or condition will be recovered from sales in the United States for that drug or biologic. Orphan drug designation must be requested before submitting a BLA. After the FDA grants orphan drug designation, the generic identity of the therapeutic agent and its potential orphan use are disclosed publicly by the FDA. The orphan drug designation does not convey any advantage in, or shorten the duration of, the regulatory review or approval process.

If a product that has orphan drug designation subsequently receives the first FDA approval for the disease for which it has such designation, the product is entitled to orphan product exclusivity, which means that the FDA may not approve any other applications, including a full BLA, to market the same biologic for the same indication for seven years, except in limited circumstances, such as a showing of clinical superiority to the product with orphan drug exclusivity. Orphan drug exclusivity does not prevent FDA from approving a different drug or biologic for the same disease or condition, or the same drug or biologic for a different disease or condition. Among the other benefits of orphan drug designation are tax credits for certain research and a waiver of the BLA application user fee.

A designated orphan drug may not receive orphan drug exclusivity if it is approved for a use that is broader than the indication for which it received orphan designation. In addition, exclusive marketing rights in the United States may be lost if the FDA later determines that the request for designation was materially defective or if the manufacturer is unable to assure sufficient quantities of the product to meet the needs of patients with the rare disease or condition.

Available Information

We file electronically with the SEC our annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K pursuant to Section 13 or 15(d) of the Exchange Act. The public may read or copy any materials we file with the SEC at the SEC's Public Reference Room at 100 F Street, NE, Washington, DC 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC maintains an Internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. The address of that site is www.sec.gov.

You may obtain a free copy of our annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K and amendments to those reports on the day of filing with the SEC, on our website at www.imuc.com or by contacting the Investor Relations Department at our corporate offices at (818) 264-2300. The information found on our website is not part of this or any other report filed with or furnished to the SEC.

Item 1A. Risk Factors.

In evaluating our business, you should carefully consider the following risks in addition to the other information in this report. Any of the following risks could materially and adversely affect our business, results of operations, financial condition or your investment in our securities, and many are beyond our control. The risks and uncertainties described below are not the only ones facing us. Additional risks and uncertainties not presently known to us, or that we currently see as immaterial, may also adversely affect our business.

Risks Relating to our Evaluation of Strategic Alternatives

Our exploration and pursuit of strategic alternatives may not be successful.

In June 2017, we determined that we were unable to secure sufficient additional financial resources to complete the phase 3 registration trial of ICT-107. As a result, we suspended further patient randomization in the ICT-107 trial in order to reduce the amount of cash used in our operations. In August 2017, we announced that we had determined to refocus and reallocate our available resources on our Stem-to-T-Cell research program. In February 2018, we announced that we had retained Ladenburg Thalmann & Co. Inc. as our strategic financial advisor to assist in the review of the Company's business and assets and exploration of strategic opportunities for enhancing stockholder value, including the potential sale or merger of the Company. In light of these developments, our strategic focus has shifted to the identification and evaluation of a range of potential strategic alternatives designed to maximize stockholder value. Potential strategic alternatives that may be explored or evaluated as part of this process include the potential for an acquisition, merger, business combination, licensing and/or other strategic transaction involving the Company. Despite devoting significant efforts to identify and evaluate potential strategic transactions, the process may not result in any definitive offer to consummate a strategic transaction, or, if we receive such a definitive offer, the terms may not be as favorable as anticipated or may not result in the execution or approval of a definitive agreement. Even if we enter into a definitive agreement, we may not be successful in completing a transaction or, if we complete such a transaction, it may not enhance stockholder value or deliver expected benefits.

If we do not successfully consummate a strategic transaction, our board of directors may decide to pursue a dissolution and liquidation of our company. In such an event, the amount of cash available for distribution to our stockholders will depend heavily on the timing of such liquidation as well as the amount of cash that will need to be reserved for commitments and contingent liabilities.

There can be no assurance that the process to identify a strategic transaction will result in a successfully consummated transaction. If no transaction is completed, our board of directors may decide to pursue a dissolution and liquidation of our company. In such an event, the amount of cash available for distribution to our stockholders, if any, will depend heavily on the timing of such decision and, ultimately, such liquidation, since the amount of cash available for distribution continues to decrease as we fund our operations while we pursue our research and development activities and evaluate our strategic alternatives. In addition, if our board of directors were to approve and recommend, and our stockholders were to approve, a dissolution and liquidation of our company, we would be required under Delaware corporate law to pay our outstanding obligations, as well as to make reasonable provision for contingent and unknown obligations, prior to making any distributions in liquidation to our stockholders. As a result of this requirement, a portion of our assets may need to be reserved pending the resolution of such obligations. In addition, we may be subject to litigation or other claims related to a dissolution and liquidation of our company. If a dissolution and liquidation were pursued, our board of directors, in consultation with its advisors, would need to evaluate these matters and make a determination about a reasonable amount to reserve. Accordingly, holders of our common stock could lose all or a significant portion of their investment in the event of a liquidation, dissolution or winding up of our company.

If we are successful in completing a strategic transaction, we may be exposed to other operational and financial risks.

Although there can be no assurance that a strategic transaction will result from the process we have undertaken to identify and evaluate strategic alternatives, the negotiation and consummation of any such transaction will require significant time on the part of our management, and the diversion of management's attention may disrupt our business.

The negotiation and consummation of any such transaction may also require more time or greater cash resources than we anticipate and expose us to other operational and financial risks, including:

- increased near-term and long-term expenditures;
- exposure to unknown liabilities;
- higher than expected acquisition or integration costs;
- incurrence of substantial debt or dilutive issuances of equity securities to fund future operations;
- write-downs of assets or goodwill or incurrence of non-recurring, impairment or other charges;
- increased amortization expenses;
- difficulty and cost in combining the operations and personnel of any acquired business with our operations and personnel;
- impairment of relationships with key suppliers or customers of any acquired business due to changes in management and ownership; and
- inability to retain key employees of our company or any acquired business.

Any of the foregoing risks could have a material adverse effect on our business, financial condition and prospects.

We may not realize any additional value in a strategic transaction for our Stem-to-T-Cell research program.

The market capitalization of our company is [below] the value of our cash and cash equivalents. Following the suspension of our ICT-107 development program, we decided to refocus and reallocate our available resources on our Stem-to-T-Cell research program. Potential counterparties in a strategic transaction involving our company may place minimal or no value on these assets, however, given the limited data regarding their potential application. Further, the development and any potential commercialization of our product candidates will require substantial additional cash to fund the costs associated with conducting the necessary preclinical and clinical testing and obtaining regulatory approval. Consequently, any potential counterparty in a strategic transaction involving our company may choose not to spend additional resources and continue development of our product candidates and may attribute little or no value, in such a transaction, to those product candidates.

We may become involved in securities class action litigation that could divert management's attention and harm the company's business, and insurance coverage may not be sufficient to cover all costs and damages.

In the past, securities class action litigation has often followed certain significant business transactions, such as the sale of a company or announcement of any other strategic transaction, or the announcement of negative events, such as negative results from clinical trials. These events may also result in investigations by the Securities and Exchange Commission. We may be exposed to such litigation or investigation even if no wrongdoing occurred. Litigation and investigations are usually expensive and divert management's attention and resources, which could adversely affect our business and cash resources and our ability to consummate a potential strategic transaction or the ultimate value our stockholders receive in any such transaction.

Risks relating to our Financial Position and Operations

We have a history of operating losses. We expect to continue to incur losses for the near future, and we may never become profitable.

With the exception of a one-time licensing fee payment that we previously received in connection with our entering into a research and license option agreement covering one of our monoclonal antibody product candidates with a third party who did not subsequently exercise that option, we have not generated any revenues and have incurred operating losses since our inception, and we expect to continue to incur operating losses for the foreseeable future. As of December 31, 2017, we had an accumulated deficit of $116,443,659. We do not have any products that generate revenue from commercial product sales. Our operating losses have resulted principally from costs incurred in pursuing our research and development programs, clinical trials, manufacturing, and general and administrative expenses in support of operations. We may be unable to develop or market products in the future that will generate revenues, and any revenues generated may not be sufficient for us to become profitable. In the event that our operating losses are greater than anticipated or continue for longer than anticipated, we will need to raise significant additional capital sooner, or in greater amounts, than otherwise anticipated in order to be able to continue development of our present product candidates or future product candidates that we may develop and maintain our operations.

There can be no assurances that capital will be available to us when and if we require additional capital on terms that are acceptable to us or favorable to our existing stockholders, or at all.

Our financial condition has adversely affected our ability to pay our vendors on a timely basis. Our inability to pay vendors within normal trade payment terms could adversely impact our operations and result in future litigation.

If we do not meet our payment obligations, it could impair our ability to obtain services or financing in the future. Until such vendors are paid, no assurances can be given that required services needed to support our operations will continue to be provided. In addition, vendors may choose to bring legal action against us to recover amounts they deem due and owing. While we may dispute certain of these claims, should a creditor prevail, we may be required to pay all amounts due to the creditor.

As our product candidates advance in clinical development, we will require significant additional funding, and our future access to capital is uncertain.

It is expensive to develop and commercialize cancer immunotherapy candidates and the study size requirements and costs for product candidates may not be feasible due to our inability to raise sufficient capital. As we consider our financial resources and liquidity, we have announced the suspension of ICT-107.

In any event, our product development efforts may not lead to commercial products, either because our product candidates fail to be found safe or effective in clinical trials or because we lack the necessary financial or other resources or relationships to pursue our programs through commercialization. Even if commercialized, a product may not achieve revenues that exceed the costs of producing and selling it. Our capital and future cash flow may not be sufficient to support the expenses of our operations and we may need to raise additional capital depending on a number of factors, including the following:

- the need to conduct larger, more expensive and longer clinical trials to obtain the data necessary for submission for product approval to regulatory agencies;
- the capability to manufacture product at the scale and quantities required to meet regulatory approval requirements and the development and commercial requirements for the product;
- the costs to obtain qualified commercial development of infrastructure and activities related to the commercialization of our products;
- the rate of progress and cost of our research and development and clinical trial activities; and
- the introduction into the marketplace of competing products and other adverse market developments.

As of December 31, 2017, we had approximately $14.3 million available for offer and sale pursuant to our Sales Agreement with Cantor Fitzgerald & Co., as agent. Sales under our Sales Agreement are registered on a registration statement on Form S-3. Pursuant to Instruction I.B.6 to Form S-3, we may not sell more than the equivalent of one-third of our public float during any 12 consecutive months so long as our public float is less than $75 million, which will limit our ability to raise funds using our Sales Agreement. Other than our Sales Agreement and our award from CIRM, we currently do not have arrangements to obtain additional financing. Any such financing could be difficult to obtain on favorable terms or at all. If we are unable to raise additional funds, we may have to delay, reduce or eliminate some of our clinical trials and our development programs. Even if we raise additional funds by issuing equity or equity-linked securities, such financings may only be available on unattractive terms and, in such event, the market price of our common stock may decline and further dilution to our existing stockholders will result. In addition, the expectation of future dilution as a result of our offering of securities convertible into equity securities may cause our stock price to decline.

We may seek Small Business Innovation Research or other government grants to conduct a portion of our planned research and development work in addition to certain equity financing. Except for one grant awarded under a federal tax credit/grant program for pharmaceutical research and development companies in 2010 and one grant application submitted under the Orphan Drug Act that was denied, we have not yet submitted any requests for these grants. The competition for obtaining these grants is intense and we may be unable to secure any grant funding on a timely basis or at all.

Our future capital needs are uncertain and our independent registered public accounting firm has expressed in its report on our 2017 audited consolidated financial statements a substantial doubt about our ability to continue as a going concern. Our ability to continue as a going concern is dependent on our ability to raise additional capital or obtain loans from

financial institutions and our operations could be curtailed if we are unable to obtain the required additional funding when needed. We may not be able to do so when necessary, and/or the terms of any financings may not be advantageous to us.

Our consolidated financial statements for the year ended December 31, 2017 included in Item 8 of this annual report on Form 10-K have been prepared assuming we will continue to operate as a going concern. However, due to our ongoing operating losses, negative cash flows from operations, our need to finance to continue our ongoing clinical trials and conduct research and our accumulated deficit, there is substantial doubt about our ability to continue as a going concern. Because we continue to experience net operating losses, our ability to continue as a going concern is subject to our ability to obtain necessary funding from outside sources, including obtaining additional funding from the sale of our securities, grants or other forms of financing. Our continued net operating losses increase the difficulty in completing such sales or securing alternative sources of funding, and there can be no assurances that we will be able to obtain such funding on favorable terms or at all. If we are unable to obtain sufficient financing from the sale of our securities or from alternative sources, we may be required to reduce, defer or discontinue certain of our clinical development, research and operating activities or we may not be able to continue as a going concern. As a result, our independent registered public accounting firm has expressed in its auditors' report on the financial statements substantial doubt regarding our ability to continue as a going concern. Our financial statements do not include any adjustments that might result from the outcome of the uncertainty regarding our ability to continue as a going concern. If we cannot continue as a going concern, our stockholders may lose their entire investment in the common stock. Future reports from our independent registered public accounting firm may also contain statements expressing doubt about our ability to continue as a going concern.

We are required to pay certain royalties under our license agreements with third party licensors, and we must meet certain milestones to maintain our license rights.

Under our license agreements with academic institutions generally, we will be required to pay substantial royalties to that institution based on our revenues from sales of our products utilizing the technologies and products licensed from the institution, and these royalty payments could adversely affect the overall profitability for us of any products that we may seek to commercialize. In order to maintain our license rights under these license agreements, we will need to meet certain specified milestones, subject to certain cure provisions, in the development of our vaccine product candidates and in the raising of funding. In addition, many of these agreements contain diligence milestones and we may not be successful in meeting all of the milestones in the future on a timely basis or at all. We will need to outsource and rely on third parties for many aspects of the clinical development, manufacture, sales and marketing of our products covered under our license agreements. Delay or failure by these third parties could adversely affect the continuation of our license agreements with their party licensors.

Risks Related To Our Business

The estimated cost of completing the development of any of our current immunotherapy product candidates and of obtaining all required regulatory approvals to market any of those product candidates is substantially greater than the amount of funds we currently have available. We will need to raise additional capital to continue future operations, which additional capital may not be available on acceptable terms or at all.

As of December 31, 2017, we had working capital of $4,647,903, compared to working capital of $10,175,846 as of December 31, 2016. The estimated cost of completing the development of any of our current immunotherapy product candidates and of obtaining all required regulatory approvals to market any of those product candidates is substantially greater than the amount of funds we currently have available. In June 2017, we announced that we had determined that we were unable to secure sufficient additional financial resources to complete the phase 3 registration trial of ICT-107. As a result, we suspended further patient randomization in the ICT-107 trial while we continue to seek a collaborative arrangement or acquisition of our ICT-107 program. Even though the suspension of the phase 3 registration trial of ICT-107 is expected to reduce the amount of cash used in our operations, we do not have enough cash resources to fund the business for the next 12 months. Successful completion of our research and development activities, and our transition to attaining profitable operations, is dependent upon obtaining financing. Additional financing may not be available on acceptable terms or at all. If we issue additional equity securities to raise funds, the ownership percentage of existing stockholders would be reduced. New investors may demand rights, preferences or privileges senior to those of existing holders of our common stock. If we cannot raise funds, we might be forced to make substantial reductions in the on-going clinical trials, thereby damaging our reputation in the biotech and medical communities which could adversely affect our ability to implement our business plan and our viability. If we cannot raise additional funds, we may be required to defer, reduce or eliminate significant planned expenditures, restructure, curtail or eliminate some or all of our development programs or other operations, dispose of technology or assets, pursue an acquisition of our company by a third party at a price that may result in a loss on investment for our stockholders, enter into arrangements that may require us to relinquish rights to certain of our product candidates, technologies or potential markets, file for bankruptcy or cease operations altogether. Any of these events could damage our reputation in the biotech and medical

communities which could adversely affect our ability to implement our business plan and our viability, and could have a material adverse effect on our business, financial condition and results of operations. Moreover, if we are unable to obtain additional funds on a timely basis, there will be substantial doubt about our ability to continue as a going concern and increased risk of insolvency and loss of investment by our stockholders.

We are a pre-revenue stage company subject to all of the risks and uncertainties of a biotechnology business, including the risk that we may never successfully develop any products or generate revenues.

We are a pre-revenue stage company with research and development activity based on two products in clinical development, and we have determined that we will not develop ICT-107 further. We may be unable to successfully develop or market any of our current or proposed product candidates, those product candidates may not generate any revenues, and any revenues generated may not be sufficient for us to become profitable or thereafter maintain profitability. We have not generated any recurring revenues to date, and we do not expect to generate any such revenues for a number of years.

We have only four employees, have limited resources and may not possess the ability to successfully overcome many of the risks and uncertainties frequently encountered by early stage companies involved in the new and rapidly evolving field of biotechnology in general and cancer immunotherapies in particular. You must consider that we may not be able to:

- engage corporate partners to assist in developing, funding, testing, manufacturing and marketing our vaccine product candidates or any future product candidates that we may develop;
- satisfy the regulatory requirements for acceptable pre-clinical and clinical trial studies or to timely enroll patients;
- establish and demonstrate or satisfactorily complete the research to demonstrate at various stages the pre-clinical and clinical efficacy and safety of our vaccine product candidates or any future product candidates that we may develop;
- apply for and obtain the necessary regulatory approvals from the FDA and the appropriate foreign regulatory agencies;
- market our vaccine product candidates or any future product candidates that we may develop to achieve acceptance and use by the medical community and patients in general and produce revenues; and
- attract and retain, on acceptable terms, qualified technical, commercial and administrative staff for the continued development and growth of our business.

Our current product candidates and any future product candidates that we may develop will be based on novel technologies and the development, manufacture and regulatory approval for such products are inherently risky.

We are subject to the risks of failure inherent in the development of products based on new technologies. The novel nature of our therapies creates significant challenges in regard to product development and optimization, manufacturing, government regulation, third-party reimbursement and market acceptance. For example, the FDA may have limited experience with dendritic cell-based therapeutics and, with the exception of one dendritic cell-based vaccine for the treatment of prostate cancer, has not yet approved any of these therapeutics for marketing, and the pathway to regulatory approval for our vaccine product candidates or any future vaccine product candidates may accordingly be more uncertain, complex and lengthy than the pathway for new conventional drugs. The targeting of cancer stem cells as a potential therapy is a recent development that may not become broadly accepted by scientists, physicians, pharmaceutical companies or the FDA. In addition, the manufacture of biological products, including dendritic cell-based vaccines, could be more complex and difficult, and therefore, these potential challenges may prevent us from developing and commercializing products on a timely or profitable basis or at all.

We may elect to delay or discontinue preclinical studies or clinical trials based on unfavorable results or lack of financial resources. Any product candidate using a cellular therapeutic technology may fail to:

- survive and persist in the desired location;
- provide the intended therapeutic benefits;
- properly integrate into existing tissue in the desired manner; or

- achieve therapeutic benefits equal to or better than the standard of treatment at the time of testing.

In addition, our product candidates may cause undesirable side effects. Results of preclinical research with our vaccine product candidates or any other or future product candidates that we may develop or clinical results with formulations used in earlier trials that are similar but not identical to our product candidate formulations may not be indicative of the results that will be obtained in later stages of preclinical or clinical research on our product candidates.

If regulatory authorities do not approve our products or if we fail to maintain regulatory compliance, we would be unable to commercialize our products, and our business and results of operations would be harmed. Furthermore, because cancer stem cell and dendritic cell-based products represent new forms of therapy, the marketplace may not accept any products we may develop that utilize these technologies. If we do succeed in developing products, we will face many potential obstacles, such as the need to obtain regulatory approvals and to develop or obtain manufacturing, marketing and distribution capabilities. In addition, we will face substantial additional risks, such as product liability claims.

Because of the early stage of development of our vaccine product candidates, we do not know if we will be able to generate data that will support the filing of a biologics license application for these product candidates or the FDA's approval thereof. Any of our investigational new drug applications (INDs) may be placed on clinical hold by the FDA at any time, which would delay clinical development until underlying safety concerns are resolved to the FDA's satisfaction. If we experience substantial delays, we may not have the financial resources to continue development of these product candidates or the development of any of our other or future product candidates that we may develop. Delays in clinical trials could reduce the commercial viability of our vaccine product candidates and any other or future product candidates that we may develop. Delays in patient enrollment may be caused by a number of factors, including patient reluctance to participate in blinded trials where the patient is not assured of receiving the treatment being tested in the trial. Even if we successfully develop and gain regulatory approval for our products, we still may not generate sufficient or sustainable revenues or we may not become profitable, which could have a material adverse effect on our ability to continue our marketing and distribution efforts, research and development programs and operations.

If we encounter difficulties enrolling patients in our clinical trials, our trials could be delayed or otherwise adversely affected.

Clinical trials for our product candidates require that we identify and enroll a large number of patients with the disease under investigation. We may not be able to enroll a sufficient number of patients, or those with required or desired characteristics to achieve diversity in a study, to complete our clinical trials in a timely manner. We have in the past experienced some difficulty in enrollment in our clinical trials due to the criteria specified for eligibility for these trials, and we may encounter these difficulties in our ongoing clinical trials for our product candidates. The early enrollment experience in the ICT-107 phase 3 trial indicated that we needed to make modifications in the trial protocol to accelerate enrollment. We submitted a protocol amendment to FDA on December 30, 2016 that modified some elements of how patients qualify for the trial, raised the target number of randomized patients to 542, and extended completion of the trial to mid-2021. The amendment was allowed by the FDA in March 2017. In June 2017, we announced that we had determined that we were unable to secure sufficient additional financial resources to complete the phase 3 registration trial of ICT-107. As a result, we suspended further patient randomization in the ICT-107 trial.

Patient enrollment is affected by factors including:

- design of the trial protocol;
- the size of the patient population;
- eligibility criteria for the study in question;
- perceived risks and benefits of the product candidate under study;
- availability of competing therapies and clinical trials;
- efforts to facilitate enrollment in clinical trials;
- the ability to monitor patients adequately during and after treatment; and
- proximity and availability of clinical trial sites for prospective patients.

If we have difficulty enrolling a sufficient number or diversity of patients to conduct our clinical trials, we may need to delay or terminate ongoing or planned clinical trials, either of which would have a negative effect on our business.

Before we can market our vaccine product candidates or any other or future product candidates that we may develop, we must obtain governmental approval for each of these product candidates, the application and receipt of which is time-consuming, costly and uncertain.

Our current product candidates and any future product candidates that we will be developing will require approval of the FDA before they can be marketed in the U.S. Although our focus at this time is primarily on the U.S. market, in the future similar approvals will need to be obtained from foreign regulatory agencies before we can market our current and proposed product candidates in other countries. The process for filing and obtaining FDA approval to market therapeutic products is both time-consuming and costly, with no certainty of a successful outcome. The historical failure rate for companies seeking to obtain FDA approval of therapeutic products, particularly vaccines for cancer, is high and, with the exception of Dendreon Corporation's (acquired in January 2017 from Valeant Pharmaceuticals by Sunpower Group Ltd.) antigen presenting cell vaccine for the treatment of prostate cancer, no cell-based cancer vaccine has to date been approved by the FDA. This process includes conducting extensive pre-clinical research and clinical testing, which may take longer and cost more than we initially anticipate due to numerous factors, including without limitation, difficulty in securing appropriate centers to conduct trials, difficulty in enrolling patients in conformity with required protocols in a timely manner, unexpected adverse reactions by patients in the trials to our proposed product candidates and changes in the FDA's requirements for our testing during the course of that testing.

We have only enrolled a limited number of patients in our ICT-121 phase 1 trial and we may encounter unexpected and adverse immune responses or other side effects in the patients whom we test with this product candidate.

The time required to obtain FDA and other approvals is unpredictable but often can exceed five years following the commencement of clinical trials, depending upon the complexity of the product and other factors.

Any analysis we perform on data from preclinical and clinical activities is subject to confirmation and interpretation by regulatory authorities, which could delay, limit or prevent regulatory approval. We may also encounter unexpected delays or increased costs due to a variety of reasons, including new government regulations from future legislation or administrative action, or from changes in FDA policy during the period of product development, clinical trials and FDA regulatory review.

Failure to timely and successfully complete clinical trials, show that our products are safe and effective and timely file and receive approval of our biologics license applications would have a material adverse effect on our business and results of operations. Even if approved, the labeling approved by the relevant regulatory authority for a product may restrict to whom we and our potential partners may market the product or in the manner in which our product may be administered, which could significantly limit the commercial opportunity for such product.

Prior to granting product approval, the FDA must determine that our third party contractors' manufacturing facilities meet current good manufacturing practice (GMP) requirements before we can use them in the commercial manufacture of our products. We and all of our contract manufacturers are required to comply with the applicable GMP current regulations. Manufacturers of biologics must also comply with the FDA's general biological product standards. Failure to comply with the statutory and regulatory requirements subjects the manufacturer to possible legal or regulatory action, such as suspension of manufacturing, seizure of product or voluntary recall of a product. GMP regulations require quality control and quality assurance as well as the corresponding maintenance of records and documentation sufficient to ensure the quality of the approved product.

Certain of our current product candidates may not be eligible for Orphan Drug status.

Regulatory authorities in the United States and Europe may designate drugs for relatively small patient populations as orphan drugs. Orphan drug designation does not convey any advantage in, or shorten the duration of, the regulatory review and approval process, but does make the product eligible for orphan drug exclusivity, reduced filing fees and specific tax credits. Generally, if a company receives the first marketing approval for a product with an orphan drug designation in the clinical indication for which it has such designation, the product is entitled to orphan drug exclusivity. Orphan drug exclusivity in the United States means that the FDA will not approve another application to market the same drug for the same indication, except in limited circumstances, for a period of seven years in the United States. This exclusivity, however, could block the approval of our proposed product candidates if a competitor obtains marketing approval before us. In Europe, orphan drug exclusivity means that we will have market exclusivity for ten years. We have obtained orphan drug status in the United States and Europe for ICT-107 to treat GBM and may also seek this status for ICT-140 to treat ovarian cancer and for ICT-121 to treat recurrent

GBM if we meet the eligibility criteria. However, even if we obtain orphan drug exclusivity for any of our proposed product candidates, we may not be able to maintain it. For example, if a competitive product is shown to be clinically superior to our product, any orphan drug exclusivity we have will not block the approval of such competitive product.

Because our current and our other future potential product candidates will represent novel approaches to the treatment of disease, there are many uncertainties regarding the development, manufacturing, market acceptance, third-party reimbursement coverage and commercial potential of our product candidates.

The approaches offered by our current product candidates or any future product candidates that we may develop may not gain broad acceptance among doctors or patients and governmental agencies or third-party medical insurers may not be willing to provide reimbursement coverage for proposed product candidates. Moreover, we do not have internal marketing data research resources and are not certain of and have not attempted to independently verify the potential size of the commercial markets for our current product candidates or any future product candidates that we may develop. Since our current product candidates and any future product candidates that we may develop will represent new approaches to treating various conditions, it may be difficult, in any event, to accurately estimate the potential revenues from these product candidates. We may spend large amounts of money trying to obtain approval for these product candidates, and never succeed in doing so. In addition, these product candidates may not demonstrate in large sets of patients the pharmacological properties ascribed to them in the laboratory studies or smaller groups of patients, and they may interact with human biological systems in unforeseen, ineffective or even harmful ways either before or after they are approved to be marketed. We have not yet manufactured our product on a commercial scale and may not be able to achieve manufacturing efficiencies relative to our competitors. We have experienced lot contamination or potential contaminations in our manufacturing process for clinical supplies that have been resolved with only minor delays to ongoing manufacturing. However, there can be no guarantee that we will not continue to experience contaminations in the future and therefore potential delays or interruptions in manufacturing. We do not yet have sufficient information to reliably estimate what it will cost to commercially manufacture our current product candidates or any future product candidates that we may develop, and the actual cost to manufacture these products could materially and adversely affect the commercial viability of these products. Certain of our cell-based vaccine product candidates may be formulated with cells harvested and processed from individual target patients, which could limit the total patient population for these vaccines and could require complex and costly manufacturing processes to produce these vaccines on a commercial basis. As a result, we may never succeed in developing a marketable product. If we do not successfully develop and commercialize products based upon our approach, we will not become profitable, which would materially and adversely affect the value of our common stock. Finally, in order to have commercially viable markets for our products, we will need to obtain an adequate level of reimbursement by third party payors for our products.

The commercial success of our product candidates will depend upon the degree of market acceptance by physicians, patients, healthcare payors and others in the medical community.

Any product that we bring to market may not gain or maintain market acceptance by governmental purchasers, group purchasing organizations, physicians, patients, healthcare payors and others in the medical community. If any products that we develop do not achieve an adequate level of acceptance, we may not generate sufficient revenues to support continued commercialization of these products. The degree of market acceptance of our product candidates, if approved for commercial sale, will depend on a number of factors, including:

- the perceived safety and efficacy of our products;
- the prevalence and severity of any side effects;
- our ability to gain access to the entire market through distributor arrangements;
- the willingness of the target patient population to try new products and of physicians to prescribe our products;
- the effectiveness of our marketing strategy and distribution support;
- the timing of our receipt of any marketing approvals, the terms of any approvals and the countries in which approvals are obtained;
- the availability of government and third-party payor reimbursement;
- the pricing of our product candidates, particularly as compared to alternative treatments; and

- the availability of alternative effective forms of treatments, at that time, for the diseases that the product candidates we are developing are intended to treat.

Adverse publicity regarding cellular therapies could impact our business.

Although we are not utilizing embryonic stem cells, adverse publicity due to the ethical and social controversies surrounding the use of such cells or any adverse reported side effects from any stem cell, dendritic or other cell therapy clinical trials or to the failure of such trials to demonstrate that these therapies are efficacious could materially and adversely affect our ability to raise capital or recruit managerial or scientific personnel or obtain research grants.

As an early stage small company that will be competing against numerous large, established companies that have substantially greater financial, technical, manufacturing, marketing, distribution and other resources than we have, we will be at a significant competitive disadvantage.

The pharmaceutical and biopharmaceutical industry is characterized by intense competition and rapid and significant technological changes and advancements. Many companies, research institutions and universities are doing research and development work in a number of areas similar to those that we focus on that could lead to the development of new products which could compete with and be superior to our product candidates.

Most of the companies with which we compete have substantially greater financial, technical, research, manufacturing, marketing, distribution and other resources than those of ours. A number of these companies may have or may develop technologies for developing products for treating various diseases, including brain cancers, which could prove to be superior to ours. We expect technological developments in the pharmaceutical and biopharmaceutical and related fields to occur at a rapid rate, and we believe competition will intensify as advances in these fields are made. Accordingly, we will be required to continue to devote substantial resources and efforts to research and development activities in order to potentially achieve and maintain a competitive position in this field. Products that we develop may become obsolete before we are able to market them or to recover all or any portion of our research and development expenses. We will be competing with respect to our products with companies that have significantly more experience and expertise in undertaking preclinical testing and human clinical trials with new or improved therapeutic products and obtaining regulatory approvals of such products. A number of these companies already market and may be in advanced phases of clinical testing of various drugs that will or may compete with our current product candidates or other future potential product candidates. Our competitors may develop or commercialize products more rapidly than we do or with significant advantages over any products we develop. Our competitors may therefore be more successful in commercializing their products than us, which could adversely affect our competitive position and business.

In addition to sipuleucel-T and ipilimumab, which have been approved for sale by the FDA, several major biopharmaceutical companies, including Genentech, Inc. (a member of the Roche Group), Amgen Inc., Merck & Co., Inc., Novartis AG, GlaxoSmithKline plc, Celgene Corporation and Bristol-Myers Squibb Company (BMS), smaller biotechnology companies, such as Oncothyreon Inc., Galena Biopharma, Inc., Agenus Inc., Bavarian Nordic A/S, Kite Pharma, Inc., Juno Therapeutics, Inc. and Immunovaccine Inc., are developing cancer immunotherapies. A number of immunotherapy companies, including Northwest Biotherapeutics, Inc., Prima Biomed Ltd and DCPrime B.V., also utilize DCs for their therapeutic cancer vaccines.

Several companies are developing immunotherapies to treat newly diagnosed GBM. For example, Northwest Biotherapeutics is conducting a phase 3 study with DCVax, a DC-based tumor lysate vaccine. Agenus Inc. has recently completed a phase 2 clinical trial with its heat shock protein and tumor-derived peptide vaccine (HSPPC-96). BMS has recently launched two late stage trials to test their checkpoint inhibitor antibody, nivolumab, in both unmethylated MGMT and methylated MGMT newly diagnosed glioblastoma patients. Nivolumab is already approved by FDA and other regulators to treat other types of cancers.

In addition to the previously mentioned companies developing cancer immunotherapies, there are also several pharmaceutical companies, including OncoMed Pharmaceuticals, Inc., Verastem, Inc., Stemline Therapeutics, Inc. and Infinity Pharmaceuticals, Inc., that are pursuing drugs that target CSCs. Stemline is currently developing a peptide treatment, SL-701, for brain cancer.

In addition, in October 2015 Novocure received regulatory approval to market its Optune™ device in the U.S. for the treatment of newly diagnosed glioblastoma. The device delivers low-intensity, intermediate frequency, alternating electric currents to the brain. The adoption of this device could impact the speed of the ICT-107 phase 3 enrollment and its potential market should ICT-107 ultimately receive regulatory approval.

Colleges, universities, governmental agencies, and other public and private research organizations are becoming more active in seeking patent protection and licensing arrangements to collect royalties for use of technologies that they have developed, some of which may directly compete with our product candidates or any future product candidates that we may develop. Governments of a number of foreign countries are aggressively investing in cellular therapy research and promoting such research by public and private institutions within those countries. Domestic and foreign institutions and governmental agencies, along with pharmaceutical and specialized biotechnology companies, can be expected to compete with us in recruiting qualified scientific personnel.

Our competitive position will be significantly impacted by the following factors, among others:

- our ability to obtain U.S. and foreign marketing approvals for our product candidates on a timely basis;
- the level of acceptance of our products by physicians, compared to those of competing products or therapies;
- our ability to have our products manufactured on a commercial scale;
- the effectiveness of sales and marketing efforts on behalf of our products;
- our ability to meet demand for our products;
- our ability to secure insurance reimbursement for our products;
- the price of our products relative to competing products or therapies;
- our ability to enter into collaborations with third parties to market our products;
- our ability to recruit and retain appropriate management and scientific personnel; and
- our ability to develop a commercial-scale research and development, manufacturing and marketing infrastructure, either on our own or with one or more future strategic partners.

The market success of our current product candidates and any future product candidates that we may develop will be dependent in part upon third-party reimbursement policies that will not be established for our product candidates until we are closer to receiving approval to market.

Our ability to successfully commercialize and penetrate the market for our current product candidates and any future product candidates that we may develop is likely to depend significantly on the availability of reimbursement for our lead product candidate or any other or future product candidates that we may develop from third-party payors, such as governmental agencies, private insurers and private health plans. Even if we are successful in bringing a proposed product candidate to the market, these product candidates may not be considered cost-effective, and the amount reimbursed for our products may be insufficient to allow us to sell any of our products on a competitive basis. We cannot predict whether levels of reimbursement for our product candidates, if any, will be high enough to allow the price of our product candidates to include a reasonable profit margin. Even with FDA approval, third-party payors may deny reimbursement if the payor determines that our particular product candidates are unnecessary, inappropriate or not cost effective. If patients are not entitled to receive reimbursements similar to reimbursements for competing products which currently are reimbursable, they may be unwilling to use our product candidates since they will have to pay for the unreimbursed amounts. The reimbursement status of newly approved health care products is highly uncertain. If levels of reimbursement are decreased in the future, the demand for our lead product candidate and any future product candidates that we may develop could diminish or our ability to sell our products on a profitable basis could be adversely affected.

We believe that the efforts of governments and third-party payors to contain or reduce the cost of healthcare will continue to affect the business and financial condition of pharmaceutical and biopharmaceutical companies. Comprehensive health care reform legislation that was enacted in 2010 could adversely affect our business and financial condition. Among other provisions, the legislation provides that a biosimilar product may be approved by the FDA on the basis of analytical tests and certain clinical studies demonstrating that such product is highly similar to an existing, approved product and that switching between an existing product and the biosimilar product will not result in diminished safety or efficacy. This abbreviated regulatory approval process may result in increased competition if we are able to bring a biopharmaceutical product to market. The legislation also includes more stringent compliance programs for companies in various sectors of the life sciences industry with which we may need to comply and enhanced penalties for non-compliance with the new health care

regulations. Complying with new regulations may divert management resources, and inadvertent failure to comply with new regulations may result in penalties being imposed on us.

A number of legislative and regulatory proposals to change the healthcare system in the United States and other major healthcare markets have been proposed at the state and federal levels in recent years. These proposals have included prescription drug benefit legislation recently enacted in the United States and healthcare reform legislation recently enacted by certain states. Further federal and state legislative and regulatory developments are likely, and we expect ongoing initiatives in the United States to increase pressure on drug pricing. Such reforms could have an adverse effect on anticipated revenues from any products that we may successfully develop.

We may be subject to product liability and other claims that could have a material negative effect on our operations and on our financial condition.

The development and sale of pharmaceutical products in general, and vaccines in particular, expose us to the risk of significant damages from product liability and other claims. Product liability claims could delay or prevent completion of our clinical development programs. If we succeed in marketing our current lead product candidates or any future product candidates that we may develop, such claims could result in an FDA investigation of the safety and effectiveness of our products or our marketing programs, and potentially a recall of our products or more serious enforcement action, or limitations on the indications for which they may be used, or suspension or withdrawal of approval. We plan to obtain and maintain product liability insurance for coverage of our clinical trial activities and obtained this coverage for the recently completed and current clinical trials of our dendritic cell-based vaccine product candidate. We may not be able to secure such insurance in the amounts we are seeking or at all for any of the future trials for our current product candidates or any future product candidates that we may develop. We intend to obtain coverage for our products when they enter the marketplace (as well as requiring the manufacturers of our products to maintain insurance), but we do not know if insurance will be available to us at acceptable costs or at all. The costs for many forms of liability insurance have risen substantially in recent years and the costs for insuring a vaccine type product may be higher than other pharmaceutical products, and such costs may continue to increase in the future, which could materially impact our costs for clinical or product liability insurance. If the cost is too high, we will have to self-insure, and we may have inadequate financial resources to pay the costs of any claims. A successful claim in excess of our product liability coverage could have a material adverse effect on our business, financial condition and results of operations.

We and certain of our current and former officers and directors and others have been named as defendants in a purported securities class action lawsuit. This, and potential similar or related litigation, could result in substantial damages and may divert management's time and attention from our business.

Securities-related class action and shareholder derivative litigation has often been brought against companies, including many biotechnology companies, which experience volatility in the market price of their securities. This risk is especially relevant for us because biotechnology and biopharmaceutical companies often experience significant stock price volatility in connection with their product development programs.

On May 1, 2017, a purported securities class action lawsuit was filed in the United States District Court for the Central District of California, captioned *Arthur Kaye IRA FCC as Custodian DTD 6-8-00 v. ImmunoCellular Therapeutics, Ltd. et al* (Case No. 2:17-cv-03250) against the Company, certain of its current and former officers and directors and others. On July 21, 2017, the court appointed lead plaintiffs in the matter. On August 24, 2017, lead plaintiffs filed Consolidated First Amended Complaint. On September 26, 2017, the court granted the parties' stipulation to allow lead plaintiffs to file a Consolidated Second Amended Complaint (the "SAC"). The SAC asserts violations of Sections 10(b) and 20(a) of the Securities Exchange Act of 1934, as amended, and SEC Rule 10b-5 promulgated thereunder, related to allegedly materially false or misleading statements made between May 1, 2012 and May 30, 2014. The complaint alleges, among other things, that the Company failed to disclose that it purportedly paid for articles to be published about ICT-107. Lead plaintiffs seek an award of unspecified damages, prejudgment and post-judgment interest, as well as reasonable attorneys' fees, and other costs. On November 10, 2017, the Company filed a motion to dismiss the SAC. The parties completed briefing on December 21, 2017 and the motion to dismiss is currently under submission. The Company intends to vigorously defend against the claims. It is possible that similar lawsuits may yet be filed in the same or other courts that name the same or additional defendants.

On July 27, 2017, a shareholder filed a derivative class action lawsuit in the Superior Court for the State of California in the County of Los Angeles, captioned *David Wiener, Derivatively and on Behalf of ImmunoCellular Therapeutics, Ltd. v. certain former and current officers and directors* (Case No. BC670134). The complaint sets forth violations of, 1) breach of fiduciary duty, 2) unjust enrichment, 3) abuse of control, 4) gross mismanagement and 5) waste of corporate assets. The

complaint alleges that the lack of oversight allowed the publication of articles about ICT-107 without disclosing that the articles were either directly, or indirectly, paid for by the Company. The complaint further alleges that, from May 1, 2012 to April 2017, certain of its current and former officers and directors failed to disclose that the stock promotion scheme in fact occurred or was occurring, the extent of it, as well as the Company's involvement. The plaintiff seeks an award of unspecified damages, prejudgment and post-judgment interest, as well as reasonable attorneys' fees, and other costs. The Company intends to vigorously defend against the claims. The Company may be obligated to indemnify its officers and directors in connection with this matter. On January 9, 2018, the parties agreed to stay the derivative class action until resolution of the securities class action. The court granted the stay on January 25, 2018.

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This lawsuit and any other potential related lawsuits are subject to inherent uncertainties, and the actual cost will depend upon many unknown factors. The outcome of the litigation is necessarily uncertain, we could be forced to expend significant resources in the defense of these suits and we may not prevail. Monitoring and defending against legal actions is time-consuming for our management and detracts from our ability to fully focus our internal resources on our business activities. In addition, we may incur substantial legal fees and costs in connection with the litigation. We are not currently able to estimate the possible cost to us from these matters, as the lawsuit is currently at an early stage and we cannot be certain how long it may take to resolve these matters or the possible amount of any damages that we may be required to pay. We have not established any reserves for any potential liability relating to this lawsuit. It is possible that we could, in the future, incur judgments or enter into settlements of claims for monetary damages. A decision adverse to our interests on this action could result in the payment of substantial damages, or possibly fines, and could have a material adverse effect on our cash flow, results of operations and financial position. In addition, the uncertainty of the currently pending litigation could lead to more volatility in our stock price.

We are dependent on our key personnel, and the loss of one or more of our key personnel would materially and adversely affect our business and prospects.

We are dependent on our officers and directors for their scientific or managerial skills. Except for our President and Chief Executive Officer and our Senior Vice President - Research, we do not have any full-time executive management personnel. We do not currently maintain key man life insurance on any of our scientific or management team. All of our full-time executive management personnel can terminate their services to us at any time. The loss of any of these individuals would materially and adversely affect our business.

As we retain additional full-time or part-time senior personnel necessary to further our advanced development of product candidates, our expenses for salaries and related items will increase materially from current levels. Competition for such personnel is intense, and we may not be able to attract or retain qualified senior personnel and our failure to do so could have an adverse effect on our ability to implement our business plan.

Significant disruptions of information technology systems or breaches of data security could adversely affect our business

Our business is increasingly dependent on complex and interdependent information technology systems, including internet-based systems, databases and programs, to support our business processes as well as internal and external communications. These computer systems are potentially vulnerable to breakdown, malicious intrusion and computer viruses which may result in the impairment of production and key business processes or loss of data or information. Additionally, our systems are potentially vulnerable to data security breaches-whether by employees, consultants or others-which may expose sensitive data to unauthorized persons. Such data security breaches could lead to the loss of trade secrets or other intellectual property, or could lead to the public exposure of personal information (including sensitive personal information) of our employees, clinical trial patients and others. Such disruptions and breaches of security could have a material adverse effect on our business, financial condition and results of operations.

Risks Relating to the Transfer of Certain Intellectual Property Rights to our Foreign Subsidiary

We may need to utilize all of our available net operating losses, and we may be subject to additional income taxes or an alternative minimum tax, in connection with our transfer of certain intellectual property rights to our foreign subsidiary.

During the fourth quarter of 2014, we licensed the non-U.S. rights to a significant portion of our intellectual property to our Bermuda-based subsidiary for approximately $11.0 million. The fair value of the intellectual property rights were determined by an independent third party. The proceeds from this sale represent a gain for U.S. tax purposes and will be offset by current year losses. However, the Internal Revenue Service, or the IRS, or the California Franchise Tax Board, or the CFTB, could challenge the valuation of the intellectual property rights and assess a greater valuation, which would require us to utilize a portion, or all, of our available net operating losses. If an IRS or a CFTB valuation exceeds our available net operating losses, we would incur additional income taxes. Our ability to use our net operating losses is subject to the limitations of IRS Section 382, as well as expiration of federal and state net operating loss carryforwards. Additionally, in the event our net operating losses were sufficient to offset the regular income taxes associated with an IRS or a CFTB revaluation of the intellectual property transferred to our Bermuda subsidiary, we would be subject to alternative minimum tax.

Risks Relating to Reliance on Third Parties

We outsource almost all of our operational and development activities, and if any party to which we have outsourced certain essential functions fails to perform its obligations under agreements with us, the development and commercialization of our lead product candidate and any future product candidates that we may develop could be delayed or terminated.

We generally rely on third-party consultants or other vendors to manage and implement the day-to-day conduct of our operations, including conducting clinical trials and manufacturing our current product candidates or any future product candidates that we may develop. Accordingly, we are and will continue to be dependent on the timeliness and effectiveness of their efforts. Our dependence on third parties includes key suppliers and third party service providers supporting the development, manufacture and regulatory approval of our products as well as support for our information technology systems and other infrastructure, including our network of leukapheresis providers. While our management team oversees these vendors, failure of any of these third parties to meet their contractual, regulatory and other obligations or the development of factors that materially disrupt the performance of these third parties could have a material adverse effect on our business.

If a clinical research organization, or CRO, that we utilize is unable to allocate sufficient qualified personnel to our studies in a timely manner or if the work performed by it does not fully satisfy the requirements of the FDA or other regulatory agencies, we may encounter substantial delays and increased costs in completing our development efforts. Any manufacturer that we select may encounter difficulties in the manufacture of new products in commercial quantities, including problems involving product yields, product stability or shelf life, quality control, adequacy of control procedures and policies, compliance with FDA regulations and the need for further FDA approval of any new manufacturing processes and facilities. For example, in August 2016, we were notified by our manufacturer producing clinical supplies for our phase 3 trial in ICT-107 that it had experienced a possible mycoplasma contamination in one healthy donor validation manufacturing run. Subsequent tests were unable to positively identify the presence of mycoplasma. In October 2016, we were notified of an additional potential mycoplasma contamination in a manufacturing run. If microbial, viral or other contaminations, including mycoplasma, are discovered in our product candidates or in the manufacturing facilities in which our product candidates are made, such manufacturing facilities may need to be closed for an extended period of time to investigate and remedy the contamination, and manufacturing of our clinical supplies and enrollment in our trials may be delayed.

The manufacture of clinical supplies for studies and commercial quantities of our current product candidates and any future product candidates that we may develop are likely to be inherently more difficult and costly than typical chemical pharmaceuticals. This could delay commercialization of any of our product candidates or reduce the profitability of these candidates for us. If any of these occur, the development and commercialization of our product candidates could be delayed, curtailed or terminated because we may not have sufficient financial resources or capabilities to continue such development and commercialization on our own. If we rely on only one source for the manufacture of the clinical or commercial supplies of any of our product candidates or products, any production problems or supply constraints with that manufacturer could adversely impact the development or commercialization of that product candidate or product.

If we or our contractors or service providers fail to comply with regulatory laws and regulations, we or they could be subject to regulatory actions, which could affect our ability to develop, market and sell our product candidates and any other or future product candidates that we may develop and may harm our reputation.

If we or our manufacturers or other third party contractors fail to comply with applicable federal, state or foreign laws or regulations, we could be subject to regulatory actions, which could affect our ability to develop, market and sell our current product candidates or any future product candidates under development successfully and could harm our reputation and lead to reduced or non-acceptance of our proposed product candidates by the market. Even technical recommendations or evidence by the FDA through letters, site visits, and overall recommendations to academia or biotechnology companies may make the manufacturing of a clinical product extremely labor intensive or expensive, making the product candidate no longer viable to manufacture in a cost efficient manner. The mode of administration may make the product candidate not commercially viable. The required testing of the product candidate may make that candidate no longer commercially viable. The conduct of clinical trials may be critiqued by the FDA, or a clinical trial site's Institutional Review Board or Institutional Biosafety Committee, which may delay or make impossible clinical testing of a product candidate. The Data Safety Monitoring Committee for a clinical trial established by us may stop a trial or deem a product candidate unsafe to continue testing. This may have a material adverse effect on the value of the product candidate and our business prospects.

We will need to outsource and rely on third parties for the clinical development and manufacture, sales and marketing of our current product candidates or any future product candidates that we may develop, and our future success will be dependent on the timeliness and effectiveness of the efforts of these third parties.

We do not have the required financial and human resources to carry out on our own all the pre-clinical and clinical development for our vaccine product candidates or any other or future product candidates that we may develop, and do not have the capability and resources to manufacture, market or sell our current product candidates or any future product candidates that we may develop. Our business model calls for the partial or full outsourcing of the clinical and other development and manufacturing, sales and marketing of our product candidates in order to reduce our capital and infrastructure costs as a means of potentially improving our financial position.

Risks Relating to our Intellectual Property

Our patents and maintenance of trade secrets may not protect the proprietary rights of our products, impairing our competitive position, and our business, financial condition and results of operations could be adversely affected.

Our ability to compete successfully will depend significantly on our ability to obtain patent coverage for our products throughout their product lifetimes, defend patents that may have issued, protect trade secrets and operate without infringing the proprietary rights of others or others infringing on our proprietary rights. Although Cedars-Sinai as our licensor has filed applications relative to a number of aspects of our cancer vaccine technology, we are responsible going forward to prosecute these patent applications. The patent situation in the fields of cancer vaccine technology and stem cell technologies is highly uncertain and involves complex legal and scientific questions.

Even if we have or are subsequently able to obtain patent protection for our vaccine product candidates or any of our other or future product candidates that we may develop, there is no guarantee that the coverage of these patents will be sufficiently broad to protect us from competitors with the same or similar technologies, or that we will be able to enforce our patents against potential infringement by third parties. Patent litigation is expensive, and we may not be able to afford the costs. We may not become aware on a timely basis that products we are developing or marketing infringe the rights of others, nor may we be able to detect unauthorized use or take appropriate and timely steps to enforce our own intellectual property rights. We may not hold or be able to obtain all of the proprietary rights to certain patents, process patents, and use patents that may be owned or controlled by third parties. As a result, we may be required to obtain additional licenses under third party patents to market certain of our potential products. If licenses are not available to us on acceptable terms, or at all, we may not be able to market these products or we may be required to delay marketing until the expiration of such patents. Protecting our intellectual property rights may also consume significant management time and resources.

Nondisclosure agreements with employees and third parties may not adequately prevent disclosure of trade secrets and other proprietary information.

In order to protect our proprietary technology and processes, we will also rely in part on nondisclosure agreements with our employees, licensing partners, consultants, agents and other organizations to which we disclose our proprietary information. These agreements may not effectively prevent disclosure of confidential information, may be limited as to their term, and may not provide an adequate remedy in the event of unauthorized disclosure of confidential information. In addition, others may independently discover trade secrets and proprietary information, and in such cases we could not assert any trade secret rights against such party. 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. Since we will rely on trade secrets and nondisclosure agreements, in addition to patents, to protect some of our

intellectual property, there is a risk that third parties may obtain and improperly utilize our proprietary information to our competitive disadvantage. We may not be able to detect unauthorized use or take appropriate and timely steps to enforce our intellectual property rights.

The manufacture, offer for sale, use or sale of our current product candidates or any future product candidates that we may develop may infringe on the patent rights of others, and we may be forced to take additional licenses, or litigate if an intellectual property dispute arises.

Should third parties patent specific cells, systems, receptors, antigens or other items that we are seeking to utilize in our development activities, we may be forced to license rights from these parties or abandon our development activities if we are unable to secure these rights on attractive terms or at all. In light of the large number of companies and institutions engaged in research and development in the cellular therapy field, we anticipate that many parties will be seeking patent rights for many cellular based technologies and that licensing and cross-licensing of these rights among various competitors may arise. Specifically, our dendritic cell-based vaccine product candidates utilize multiple antigens for which we may be required to obtain licenses from one or more other parties before we can commercialize them. We may not be able to obtain all of the licenses that we may need on attractive terms or at all, which could result in our having to reformulate or abandon this product candidate or delay its development or commercialization until the expiration of third party patent rights.

If we infringe or are alleged to have infringed another party's patent rights, we may be required to 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, do not successfully defend an infringement action or are unable to have infringed patents declared invalid, we may:

- incur substantial monetary damages;
- encounter significant delays in marketing our current product candidates or any future product candidates that we may develop; or
- be unable to conduct or participate in the manufacture, use, offer for sale or sale of product candidates or methods of treatment requiring licenses.

Parties making such claims may be able to obtain injunctive relief that could effectively block our ability to further develop or commercialize our current product candidates or any future product candidates that we may develop in the United States and abroad and could result in the award of substantial damages. Defense of any lawsuit or failure to obtain any such license could substantially harm us. Litigation, regardless of outcome, could result in substantial cost to and a diversion of efforts by us.

Risks Related to our Common Stock

Our stock price may be volatile, and your investment in our common stock could decline in value.

The market prices for our common stock and the securities of other development stage pharmaceutical or biotechnology companies have been highly volatile and may continue to be highly volatile in the future. Between January 1, 2017 and December 31, 2017, the stock price for our common stock has ranged from $0.19 to $4.27. The following factors, in addition to other risk factors described in this section, may have a significant impact on the market price of our common stock:

- the progress and success of clinical trials and preclinical activities (including studies and manufacture of materials) of our product candidates conducted by us or our collaborative partners or licensees;
- the receipt or failure to receive the additional funding necessary to conduct our business;
- selling by large stockholders;
- presentations of detailed clinical trial data at medical and scientific conferences and investor perception thereof;
- announcements of technological innovations or new commercial products by our competitors or us;
- developments concerning proprietary rights, including patents by our competitors or us;

- developments concerning our collaborations;
- publicity regarding actual or potential medical results relating to products under development by our competitors or us;
- regulatory developments in the United States and foreign countries;
- manufacturing or supply disruptions at our contract manufacturers, or failure by our contract manufacturers to obtain or maintain approval of the FDA or comparable regulatory authorities;
- litigation or arbitration;
- economic and other external factors or other disaster or crisis; and
- period-to-period fluctuations in financial results.

Furthermore, during the last few years, the stock markets have experienced extreme price and volume fluctuations and the market prices of some equity securities continue to be volatile. These fluctuations often have been unrelated or disproportionate to the operating performance of these companies. These broad market and industry fluctuations, as well as general economic, political and market conditions such as recessions, interest rate changes or international currency fluctuations, may cause the market price of shares of our common stock to decline.

Future equity issuances or a sale of a substantial number of shares of our common stock may cause the price of our common stock to decline.

Because we will continue to need additional capital to continue to expand our business and our research and development activities, among other things, we may conduct additional equity offerings. In addition, pursuant to our Sales Agreement we may offer and sell, from time to time, shares of our common stock having an offering price up to an aggregate total of $15.1 million. As of December 31, 2017, we had approximately $14.3 million available for offer and sale pursuant to our ATM facility. Sales under our ATM facility are registered on a registration statement on Form S-3. Under applicable rules and regulations, we may not sell more than the equivalent of one-third of our public float during any 12 consecutive months so long as our public float is less than $75 million, which would limit our ability to raise funds using our ATM facility. If we or our stockholders sell substantial amounts of our common stock (including shares issued upon the exercise of options and warrants) in the public market, the market price of our common stock could fall. A decline in the market price of our common stock could make it more difficult for us to sell equity or equity-related securities in the future at a time and price that we deem appropriate. Furthermore, if we obtain funds through a credit facility or through the issuance of debt or preferred securities, these securities would likely have rights senior to your rights as a common stockholder, which could impair the value of our common stock.

We may lose our current NYSE American listing of our common stock and may not be eligible to list our common stock on other exchanges. If we are unable to maintain compliance with NYSE American continued listing standards and policies, the NYSE American may commence proceedings to delist our common stock, and in some cases, determine to suspend trading in our common stock immediately without an opportunity to propose a plan that could enable us to regain compliance, which would likely cause the liquidity and market price of our common stock to decline.

Our common stock currently trades on the NYSE American under the symbol IMUC. On June 23, 2017, we were notified by the NYSE American that the Company was not in compliance with Section 1003(a)(iii) of the NYSE American Company Guide (requiring stockholders' equity of at least $6 million if that issuer has sustained losses from continuing operations and/or net losses in its five most recent fiscal years). We have had a loss from operations and net loss in each of our five most recent fiscal years. At March 31, 2017, our stockholders' equity was $478,725, and at December 31, 2017, we had stockholders' equity of $4,648,471. Accordingly, we have become subject to the procedures and requirements of Section 1009 of the NYSE American Company Guide., We submitted a plan of compliance on July 24, 2017 and , the NYSE American accepted our plan of compliance on September 8, 2017. If we do not regain compliance with the standards by December 23, 2018 or if we do not make progress consistent with our plan of compliance, the NYSE American staff may commence delisting proceedings.

If our common stock is delisted from the NYSE American, it could potentially impair the liquidity of our securities not only in the number of shares that could be bought and sold at a given price, which might be depressed by the relative illiquidity, but also through delays in the timing of transactions and the potential reduction in media coverage. As a result, an investor

might find it more difficult to dispose of our common stock. We believe that current and prospective investors would view an investment in our common stock more favorably if it continues to be listed on the NYSE American.

Potential conflicts of interest could arise for certain members of our management team in the performance of their services for us.

Dr. John Yu is a full-time employee of Cedars-Sinai, which owns shares of our common stock and where we previously conducted and plan to conduct future research and development work, including clinical trials of our vaccine product candidates. Potential conflicts of interest could arise as a result, including for Dr. Yu in performing services for us and for Cedars-Sinai, in establishing the terms under which Cedars-Sinai performs work for us, and in Cedars-Sinai conducting the research. Dr. Yu and other scientists associated with Dr. Yu at Cedars-Sinai may perform research in the field of brain tumors that is sponsored by other third parties. We have no present right to acquire any interest in the intellectual property generated by this research, including several clinical trials with dendritic cell-based vaccines that have been completed or are planned to be initiated. These studies may compete for patients to be enrolled in our current or future clinical trials.

Substantial sales of our common stock could cause our common stock price to fall.

As of December 31, 2017, we had 41,928,356 shares of common stock outstanding and another 5,159,015 shares of common stock issuable upon exercise of options or warrants and convertible preferred stock, most of which are eligible to be publicly resold under current registration statements or pursuant to Rule 144. The possibility that substantial amounts of our common stock may be sold in the public market may adversely affect prevailing market prices for our common stock and could impair our ability to raise capital through the sale of our equity securities.

Two research reports were published by one of the underwriters after the initial filing of our registration statement in connection with our August 2016 underwritten public offering. If either of these research reports were held to violate the Securities Act, investors in that offering may have the right to seek refunds or damages.

On June 7, 2016 and June 8, 2016, after the initial filing of the registration statement in connection with our recent underwritten public offering, two research reports were written and distributed by Maxim Group LLC, one of the underwriters in the offering. These research reports were not intended to constitute offering materials in connection with this offering; however, there may nevertheless be a risk that the reports could be deemed prospectuses not meeting the requirements of the Securities Act, and the distribution of the reports could be found to be a violation of Section 5 of the Securities Act.

If the distribution of these research reports were to be held by a court to be a violation by us of Section 5 of the Securities Act, purchasers in the offering that received the research reports, if any, and potentially all purchasers of common stock in the offering would, under the Securities Act, have the right for a period of one year from the date of purchase to seek recovery of the consideration paid in connection with their purchase, or, if they had already sold the common stock purchased in the offering, sue us for damages resulting from their purchase. The total amount of these damages could potentially equal the gross proceeds of the offering, plus interest and the purchasers' attorneys' fees, if these investors seek recovery or damages after an entire loss of their investment. We also could be subject to potential enforcement actions by the Securities and Exchange Commission, which could result in injunctive relief or the imposition of fines. Although we would vigorously contest any claims brought on the basis of these research reports, there can be no guarantee that we would be successful in refuting any and all such claims. If any such claims were to succeed, we might not have sufficient funds to pay the resulting damages or to finance a repurchase of our common stock, and our reputation and our business could be materially and adversely affected.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

We do not currently lease or own any real property.

Item 3. Legal Proceedings.

We are not a party to any material legal proceedings other than the matters described below. We may occasionally become subject to legal proceedings and claims that arise in the ordinary course of our business. It is impossible for us to

predict with any certainty the outcome of any disputes that may arise, and we cannot predict whether any liability arising from claims and litigation will be material in relation to our financial position or results of operations.

On December 8, 2016, we signed an offer of settlement with the SEC related to an investigation principally of a former Chief Executive Officer involving conduct between November 2011 and August 2012 regarding the publication of articles without disclosing that they were paid for by us or investor relations firms hired by us. The offer of settlement provided that, without admitting or denying allegations, we would consent to the entry of an administrative order requiring that we cease and desist from any future violations of Sections 17(a) and 17(b) of the Securities Act of 1933, as amended, and Section 10(b) of the Securities Exchange Act of 1934, as amended, and Rule 10b-5 thereunder, subject to approval by the Commissioners of the SEC. The proposed settlement also involves the adoption of certain corporate governance amendments to our policies and practices, in particular as it relates to the retention of investor relations and public relations firms. The proposed settlement is contingent upon approval by the Commissioners of the SEC, which cannot be assured. Based upon the offer of settlement, we have not accrued and does not currently expect to accrue a liability related to this matter. However, the settlement must be approved by the Commissioners of the SEC. If the Commissioners of the SEC do not approve the settlement, we may need to enter into further discussions with the SEC to resolve the investigated matters on different terms and conditions. As a result, there can be no assurance as to the final terms of any settlement including its financial impact or any future adjustment to the financial statements.

On May 1, 2017, a purported securities class action lawsuit was filed in the United States District Court for the Central District of California, captioned Arthur Kaye IRA FCC as Custodian DTD 6-8-00 v. ImmunoCellular Therapeutics, Ltd. et al (Case No. 2:17-cv-03250) against the Company, certain of its current and former officers and directors and others. On July 21, 2017, the court appointed lead plaintiffs in the matter. On August 24, 2017, lead plaintiffs filed Consolidated First Amended Complaint. On September 26, 2017, the court granted the parties' stipulation to allow lead plaintiffs to file a Consolidated Second Amended Complaint (the "SAC"). The SAC asserts violations of Sections 10(b) and 20(a) of the Securities Exchange Act of 1934, as amended, and SEC Rule 10b-5 promulgated thereunder, related to allegedly materially false or misleading statements made between May 1, 2012 and May 30, 2014. The complaint alleges, among other things, that the Company failed to disclose that it purportedly paid for articles to be published about ICT-107. Lead plaintiffs seek an award of unspecified damages, prejudgment and post-judgment interest, as well as reasonable attorneys' fees, and other costs. On November 10, 2017, the Company filed a motion to dismiss the SAC. The parties completed briefing on December 21, 2017 and the motion to dismiss is currently under submission. The Company intends to vigorously defend against the claims. It is possible that similar lawsuits may yet be filed in the same or other courts that name the same or additional defendants.

On July 27, 2017, a shareholder filed a derivative class action lawsuit in the Superior Court for the State of California in the County of Los Angeles, captioned David Wiener, Derivatively and on Behalf of ImmunoCellular Therapeutics, Ltd. v. certain former and current officers and directors (Case No. BC670134). The complaint sets forth violations of, 1) breach of duty, 2) unjust enrichment, 3) abuse of control, 4) gross mismanagement and 5) waste of corporate assets. The complaint alleges that the lack of oversight allowed the publication of articles about ICT-107 without disclosing that the articles were either directly, or indirectly, paid for by the Company. The complaint further alleges that from May 1, 2012 to April 2017, certain of its current and former officers and directors failed to disclose that the stock promotion scheme in fact occurred or was occurring, the extent of it, as well as the Company's involvement. The plaintiff seeks an award of unspecified damages, prejudgment and post-judgment interest, as well as reasonable attorneys' fees, and other costs. The Company intends to vigorously defend against the claims. The Company may be obligated to indemnify its officers and directors in connection with this matter. On January 9, 2018, the parties agreed to stay the derivative class action until resolution of the securities class action. The court granted the stay on January 25, 2018.

Item 4. Mine Safety Disclosures.

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 has been traded on the NYSE American since May 30, 2012 under the symbol IMUC. Our common stock previously traded on the OTC Bulletin Board over-the-counter market. The following price information reflects inter-dealer prices, without retail mark-up, mark-down or commission and may not represent actual transactions:

Quarter Ended	High	Low
March 31, 2016	$ 15.03	$ 8.07
June 30, 2016	$ 13.60	$ 8.07
September 30, 2016	$ 10.60	$ 4.44
December 31, 2016	$ 4.80	$ 1.83
March 31, 2017	$ 4.27	$ 1.85
June 30, 2017	$ 3.12	$ 0.80
September 30, 2017	$ 2.79	$ 0.25
December 31, 2017	$ 0.55	$ 0.17

Stockholders

As of March 1, 2018, there were approximately 41 holders of record of our common stock, not including any persons who hold their stock in "street name."

Dividend Policy

We have not paid any dividends on our common stock to date and do not anticipate that we will pay dividends in the foreseeable future. Any payment of cash dividends on our common stock in the future will be dependent upon the amount of funds legally available, our earnings, if any, our financial condition, our anticipated capital requirements and other factors that the Board of Directors may think are relevant. However, we currently intend for the foreseeable future to follow a policy of retaining all of our earnings, if any, to finance the development and expansion of our business and, therefore, do not expect to pay any dividends on our common stock in the foreseeable future.

Sales of Unregistered Securities

None.

Item 6. Selected Financial Data.

Not applicable.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

You should read the information in this Item 7 together with our consolidated financial statements and notes thereto that appear elsewhere in this Annual Report. This Annual Report contains forward-looking statements that involve risks, uncertainties, and assumptions. Actual results may differ materially from those anticipated in these forward-looking statements as a result of various factors, including, but not limited to, those presented under "Risk Factors" included in Item 1.A of Part I and elsewhere in this Annual Report.

Overview

ImmunoCellular Therapeutics, Ltd. is a clinical-stage biotechnology company that is developing immune-based therapies for the treatment of cancers. Immunotherapy is an emerging approach to treating cancer in which a patient's own immune system is stimulated to target tumor antigens, that the immune system uses to identify foreign bodies. While some other cancer immunotherapies target only a single cancer antigen, our technology can elicit an immune response against several

antigens simultaneously. Our clinical stage cancer immunotherapy programs are also distinguished by the fact that they target cancer stem cells (CSCs), which are the primary drivers of tumor growth and disease recurrence.

In June 2017, we announced that we had determined that we were unable to secure sufficient additional financial resources to complete the phase 3 registration trial of ICT-107, our patient-specific, dendritic cell-based immunotherapy for patients with newly diagnosed glioblastoma, which was previously our lead product candidate. As a result, we have terminated further patient randomization in the ICT-107 trial while we continue to seek a collaborative arrangement or acquisition of our ICT-107 program. The termination of the phase 3 registration trial of ICT-107 is expected to reduce the amount of cash used in our operations.

We are developing Stem-to-T-Cell immunotherapies for the treatment of cancer based on rights to novel technology we exclusively licensed from the California Institute of Technology (Caltech). The technology originated from the labs of David Baltimore, Ph.D., Nobel Laureate and President Emeritus at Caltech, and utilizes the patient's own hematopoietic stem cells to create antigen-specific killer T cells to treat cancer. We plan to utilize this technology to expand and complement our DC-based cancer immunotherapy platform, with the goal of developing new immunotherapies that kill cancer cells in a highly directed and specific manner and that can function as monotherapies or in combination therapy approaches.

Caltech's technology potentially addresses the challenge, and limitation, that other immunotherapies, including TCR (T cell receptor) technologies, have faced of generating a limited immune response and having an unknown persistence in the patient's body. We believe that by inserting DNA that encodes T cell receptors into hematopoietic stem cells rather than into T cells, the immune response can be transformed into a durable and more potent response that could effectively treat solid tumors. This observation has been verified in animal models by investigators at Caltech and the National Cancer Institute.

In March 2017, we announced the successful completion of the first milestone of our Stem-to-T-cell program, the sequencing of a selected TCR, that will become the basis for the product development program. In November 2015, we entered into a sponsored research agreement with The University of Texas MD Anderson Cancer Center with the goal of identifying a TCR sequence. In addition, in 2015 we acquired an option from Stanford University to evaluate certain technology related to the identification of TCRs that could prove useful in supporting our Stem-to-T-Cell research efforts. In March 2017, a TCR sequence for our Stem-to-T-Cell program became available.

In December 2017, we announced that we successfully packaged a TCR DNA sequence into a lentiviral vector, which was then used to transfect human hematopoietic stem cells and initiated in vitro proof of concept work.

In addition, we entered into a sponsored research agreement with the University of Maryland, Baltimore (UMB) in January 2016. As part of this collaboration, UMB researchers are undertaking three projects to explore potential enhancements to our dendritic cell and Stem-to-T-Cell immunotherapy platforms.

We have incurred operating losses and, as of December 31, 2017, the Company had an accumulated deficit of $116,443,659. We expect to incur significant research, development and administrative expenses before any of its products can be launched and recurring revenues generated.

For additional information about our plan of business operation, see the "Business" section of this Annual Report included in Item 1 of Part I.

Critical Accounting Policies and Management Estimates

Management's discussion and analysis of our financial condition and results of operations are based on our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these consolidated financial statements requires management to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. On an ongoing basis, management evaluates its estimates, including those related to impairment of long-lived assets, including finite lived intangible assets, accrued liabilities, fair value of warrant derivatives and certain expenses. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ materially from these estimates under different assumptions or conditions.

Our significant accounting policies are summarized in Note 2 of our consolidated financial statements. We believe the following critical accounting policies affect our more significant judgments and estimates used in the preparation of our consolidated financial statements:

Research and Development Costs

Although we believe that our research and development activities and underlying technologies have continuing value, the amount of future benefits to be derived from them is uncertain. Research and development costs are expensed as incurred. During the years ended December 31, 2017, 2016 and 2015, we recorded an expense of $17,126,244, $19,105,727 and $10,896,591, respectively, related to research and development activities. We expect our research and development expenses in 2018 will decrease compared to 2017 given that we suspended the phase 3 trial of ICT-107 in June 2017.

Stock-Based Compensation

Stock-based compensation expense is estimated as of the grant date based on the fair value of the award and is recognized as expense over the requisite service period, which generally equals the vesting period, based on the number of awards that are expected to vest. Estimating the fair value for stock options requires judgment, including the expected term of our stock options, volatility of our stock, expected dividends, risk-free interest rates over the expected term of the options and the expected forfeiture rate. In connection with our performance based programs, we make assumptions principally related to the number of awards that are expected to vest after assessing the probability that certain performance criteria will be met.

Income Taxes

The Company accounts for federal and state income taxes under the liability method, with a deferred tax asset or liability determined based on the difference between the financial statement and tax basis of assets and liabilities, as measured by the enacted tax rates. The Company's provision for income taxes represents the amount of taxes currently payable, if any, plus the change in the amount of net deferred tax assets or liabilities. A valuation allowance is provided against net deferred tax assets if recoverability is uncertain on a more likely than not basis. The Company recognizes in its consolidated financial statements the impact of an uncertain tax position if the position will more likely than not be sustained upon examination by a taxing authority, based on the technical merits of the position. The Company's policy is to recognize interest related to unrecognized tax benefits as interest expense and penalties as operating expenses. The Company is not currently under examination by any taxing authority nor has it been notified of an impending examination. The Company's tax returns for the years ended December 31, 2017, 2016, 2015 and 2014 remain open for possible review.

California Institute of Regenerative Medicine

During 2015, the Company received an award from the California Institute of Regenerative Medicine (CIRM) of $19.9 million, of which $4 million was received by the Company during 2015, to partially fund the Company's phase 3 trial of ICT-107. In August 2016, the Company and CIRM modified the award such that the Company received an additional $1.5 million initial payment. The total amount of the award and other conditions remain unchanged. Under the terms of the award, the Company was required to share future ICT-107 related revenue with CIRM. The percentage of revenue sharing was dependent on the amount of the award received by the Company and whether the revenue was from product sales or license fees. As an alternative to revenue sharing, the Company had the option to convert the award to a loan. In the event the Company exercised its right to convert the award to a loan, it would have been obligated to repay the loan including interest at the rate of the three-month LIBOR rate plus 25% per annum. Since the Company may have been required to repay some or all of the amounts awarded by CIRM, the Company accounted for this award as a liability rather than revenue and accrued interest through June 20, 2017, at the aforementioned rates. As described in Item 1 of Part I of this Annual Report, the Company suspended the Phase 3 trial of ICT-107 and will not be required to return the CIRM funds that were spent on the trial. Consequently, during the year ended December 31, 2017, the Company recognized a gain of $7,719,440 as derecognition of the CIRM award liability including accrued interest. As of December 31, 2017, the Company had $108,984 of unused CIRM funds. Subsequent to December 31, 2017, the Company returned these funds to CIRM.

Fair Value of Financial Instruments

The carrying amounts reported in the balance sheets for cash, cash equivalents, and accounts payable approximate their fair values due to their quick turnover. Previously, the Company estimated the fair value of warrant derivative liability using the Binomial Lattice option valuation model for warrants that are not publicly traded. The Company determined the fair value of the warrant derivative liability of its publicly traded warrants based upon the last trading price as of the balance sheet date. Effective July 1, 2017, the Company early adopted ASU No. 2017-11, which specifies that financial instruments with down round protection should be accounted for as equity rather than as derivatives. Accordingly, the Company reclassified its derivatives warrants from liabilities to equity.

As the par value per share of the Company's common stock remained unchanged at $0.0001 per share, a total of $8,805 was reclassified from common stock to additional paid-in capital. All references to shares of common stock and per share data for all periods presented in the accompanying financial statements and notes thereto have been adjusted to reflect the reverse stock split on a retroactive basis.

In June 2017, the Company's stockholders approved a certificate of amendment to its amended and restated certificate of incorporation to increase the number of authorized shares of common stock from 25.0 million to 50.0 million, which was effective on June 16, 2017.

Warrants with Down Round Price Protection

In July 2017, the FASB issued ASU No. 2017-11, which changes the classification analysis of certain equity-linked financial instruments (or embedded features) with down round features. When determining whether certain financial instruments should be classified as liabilities or equity instruments, a down round feature no longer precludes equity classification when assessing whether the instrument is indexed to an entity's own stock. ASU No. 2017-11 also clarifies existing disclosure requirements for equity-classified instruments. As a result, a freestanding equity-linked financial instrument (or embedded conversion option) no longer would be accounted for as a derivative liability at fair value as a result of the existence of a down round feature. For freestanding equity classified financial instruments, ASU No. 2017-11 requires entities to recognize the effect of the down round feature when calculating earnings per share. That effect is treated as a dividend and as a reduction of income available to common shareholders in basic earnings per share. ASU No. 2017-11 is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. Early adoption is permitted, including adoption in an interim period. If an entity early adopts ASU No. 2017-11 in an interim period, adjustments should be reflected as of the beginning of the interim period in either of the following ways: 1. Retrospectively to outstanding financial instruments with a down round feature by means of a cumulative-effect adjustment to the statement of financial position as of the beginning of the first fiscal year and interim period(s) in which ASU No. 2017-11 is effective or 2. Retrospectively to outstanding financial instruments with a down round feature for each prior reporting. We elected to adopt ASU No. 2017-11 effective July 1, 2017 retrospectively to outstanding financial instruments with a down round feature by means of a cumulative-effect adjustment to our beginning accumulated deficit as of January 1, 2017.

Reverse Stock Split

On November 18, 2016, the Company effected a one-for-forty reverse stock split of its common stock through an amendment to its amended and restated certificate of incorporation (the "COI Amendment"). As of the effective time of the reverse stock split, every forty shares of the Company's issued and outstanding common stock were converted into one issued and outstanding share of common stock, without any change in par value per share. The reverse stock split affected all shares of the Company's common stock outstanding immediately prior to the effective time of the reverse stock split, as well as the number of shares of common stock available for issuance under the Company's equity incentive plans and outstanding warrants. No fractional shares were issued as a result of the reverse stock split. Stockholders who would otherwise have been entitled to receive a fractional share received cash payments in lieu thereof. In addition, the COI Amendment reduced the number of authorized shares of common stock to 25.0 million.

Results of Operations

For the Years Ended December 31, 2017 and 2016

Net Loss

We incurred a net loss of $14,312,007 during the year ended December 31, 2017 compared to a net loss of $22,085,702 during the year ended December 31, 2016. The decrease in the net loss in 2017 is primarily due to recognizing a gain of $7,719,440 related to the derecognition of the CIRM liability, decrease in research and development expenses related to the termination of our ICT-107 phase 3 trial and reductions in general and administrative expenses. In 2016, we recognized a credit of $3,812,398 related to the revaluation of our warrant derivatives. We did not record any credits or charges to income during 2017 related to the revaluation of our warrant derivatives.

Revenues

We did not have any revenue in the years ended December 31, 2017 or 2016 and we do not expect to have any revenue in 2018.

Expenses

Research and development expenses during the year ended December 31, 2017 were $17,126,244 compared to $19,105,727 for the year ended December 31, 2016. In June 2017, we terminated future patient enrollment in our phase 3 trial of ICT-107 and during the second half of 2017, our trial related expenses included the costs to wind down the trial. We wrote off our remaining supply inventories of approximately $2.3 million as we determined there were no alternative uses and the salvage value was estimated to be zero. We also expensed certain contractual obligation costs to wind down the trial. We did not incur any similar expenses in 2016. We expect that our ICT-107 expenses to continue to decrease in 2018 as our future trial related costs are primarily limited to winding down the trial. During 2017, we also incurred expenses related to our Stem-to-T cell immunotherapies. We expect these expenses to increase in 2018. These increases were offset by significant reductions in expenses related to the wind down of the ICT-107 Phase 2 and ICT-121 trials. Our ICT-140 program remains on hold until we find a partner for this program.

Our general and administrative expenses for the years ended December 31, 2017 and 2016 were $4,027,200 and $5,006,398 respectively. This decrease was primarily due to reductions in compensation expense, the size of our Board of Directors and board compensation and the downsizing of our corporate offices. The decrease was partially offset by additional legal expenses related to certain litigation.

During 2017, the Company recorded a credit of $7,719,440 to account for derecognition of the CIRM award liability. This amount represents $5,391,016 of funds advanced by CIRM to the Company and spent on the ICT-107 trial and the reversal of $2,219,440 of accrued interest. As of December 31, 2017, the Company had $108,984 of unused CIRM funds. Subsequent to December 31, 2017, the Company returned these funds to CIRM.

During 2017, we incurred $3,772,040 in non-cash expenses, consisting of $492,185 of stock based compensation, $47,768 of depreciation expense, $882,683 of interest accrued on the CIRM award and $2,349,404 write-off of our supplies. We also recorded a non-cash credit of $7,719,440 for the derecognition of the CIRM award liability. During 2016, we incurred $3,114,457 in non-cash expenses, consisting of $1,228,987 of stock based compensation, $498,520 of financing expense associated with warrant repricing, $75,114 of depreciation expense and $1,311,836 of interest accrued on the CIRM award. These expenses were offset as the Company recognized a credit of $3,812,398 related to the revaluation of our warrant derivatives. The value of our warrant derivative was highly influenced by the price of our Company's common stock.

With the early adoption of ASU No. 2017-11, we did not recognized a gain or loss due to the revaluation of our warrants in 2017. During 2016, we recognized a gain of $3,812,398 related to the revaluation of our warrant derivatives.

For the Years Ended December 31, 2016 and 2015

Net Loss

We incurred a net loss of $22,085,702 during the year ended December 31, 2016 compared to a net loss of $12,790,814 during the year ended December 31, 2015. The increase in the net loss in 2016 is primarily due to an increase in research and development expenses related to the initiation of our ICT-107 phase 3 trial and general and administrative expenses, partially offset by an increase in the credit to other income related to the revaluation of our warrant derivatives.

Revenues

We did not have any revenue in the years ended December 31, 2016 or 2015 and we do not expect to have any revenue in 2017.

Expenses

Research and development expenses during the year ended December 31, 2016 were $19,105,727 compared to $10,896,591 for the year ended December 31, 2015. During 2016 we incurred expenses related to the initiation of our ICT-107 phase 3 trial. These expenses included site initiations, technology transfer to Europe and regulatory submissions in Canada and eight European countries. We began patient enrollment and randomized 14 patients. Additionally, we liberalized the enrollment criteria for ICT-121 and completed patient enrollment in phase 1.

Our general and administrative expenses for the years ended December 31, 2016 and 2015 were $5,006,398 and $4,616,500 respectively. The increase was primarily due to severance and related payroll expenses accrued to the former CEO of approximately $700,000.

During the year ended December 31, 2016, we incurred $3,114,457 in non-cash expenses, consisting of $1,228,987 of stock based compensation, $498,520 of financing expense associated with warrant repricing, $75,114 of depreciation expense

and $1,311,836 of interest accrued on the CIRM award. These expenses were offset as the Company recognized a credit of $3,812,398 related to the revaluation of our warrant derivatives. During the year ended December 31, 2015, we incurred $1,175,065 in non-cash expenses, consisting of $916,028 of stock based compensation, $88,939 of financing expense associated with warrant repricing, $36,193 of depreciation expense and $133,905 of interest accrued on the CIRM award. These expenses were offset as the Company recognized a credit of $2,925,258 related to the revaluation of our warrant derivatives.

Liquidity and Capital Resources

As of December 31, 2017, we had working capital of $4,647,903, compared to working capital of $10,175,846 as of December 31, 2016 and through December 31, 2017, we have incurred accumulated losses of $116,443,659. As a result of the suspension of our phase 3 trial of ICT-107, the winding down of ICT-121, reductions in operating expenses associated with the reduction in personnel, board structure and compensation and occupancy, we expect our cash used in operations to decrease in future periods. In order to adequately fund the Company's remaining Stem-to-T cell program, we will need additional capital resources, either from the exercise of existing warrants, new sources of capital, or a combination, none of which can be assured. Accordingly, our independent registered public accounting firm has expressed in its report on our 2017 consolidated financial statements substantial doubt about our ability to continue as a going concern. Successful completion of our research and development activities, and our transition to attaining profitable operations, is dependent upon obtaining financing. Additional financing may not be available on acceptable terms or at all. If we issue additional equity securities to raise funds, the ownership percentage of existing stockholders would be reduced. New investors may demand rights, preferences or privileges senior to those of existing holders of common stock. If we cannot raise funds, we might be forced to restructure our business and operations.

In July 2017, we entered into an underwriting agreement with Maxim Group, LLC, pursuant to which we sold 5,000 shares of Series B 8% Mandatorily Convertible Preferred Stock (the Preferred Stock) and related warrants (the "Warrants") to purchase up to 9,000 shares of Preferred Stock for net proceeds of approximately $4.0 million excluding proceeds from the exercise of the Warrants. In addition to the 8% cumulative dividend, each share of Preferred Stock includes an 8% original issue discount such that upon conversion into common stock, the face amount of the preferred stock is increased by 8%. The Preferred Stock is convertible into common stock using a conversion price equal to the lesser of (i) $1.22, subject to certain adjustments, and (ii) 87.5% of the lowest volume weighted average price of our common stock during the ten trading days ending on, and including, the date of the notice of conversion. The conversion price described in (ii) is subject to a floor of $0.35, except in the event of anti-dilution adjustments.

The Warrants consist of three tranches with expirations in October 2017, January 2018 and July 2018. Each tranche allows the holders to purchase up to 3,000 shares of Preferred Stock at a price of $1,000 per share. If fully exercised, each tranche would provide the Company with $3.0 million of additional financing ($9.0 million in total), before underwrting discounts and commissions. Upon exercise, the Warrant holders receive shares of Preferred Stock that are convertible into common stock on the same terms as discussed above.

Through December 31, 2017, holders of Preferred Stock converted 4,998 shares of the Preferred Stock into 13,899,219 shares of the Company's Common Stock. Additionally, investors exercised Warrants for the issuance of 7,918.38 shares of Preferred Stock and simultaneously converted those shares into 24,433,834 shares of common stock. The Company received proceeds of $7,774,125 from the exercise of the Warrants. Additionally, during 2017, the Company received $41,000 from the exercise of the pre-funded warrants issued as part of the August 2016 financing.

On September 18, 2015, we received an award in the amount of $19.9 million from the California Institute of Regenerative Medicine (CIRM) to partially fund our phase 3 trial of ICT-107. The award provided for a $4 million project initial payment that we received in the fourth quarter of 2015 and $15.9 million in future milestone payments that are primarily dependent on patient enrollment. In August 2016, the award was modified so that we received an additional $1.5 million initial payment. The total amount of the award and other award conditions remained unchanged. Under the terms of the CIRM award, we were obligated to share future ICT-107 related revenue with CIRM. The percentage of revenue sharing was dependent on the amount of the award received by us and whether the revenue was from product sales or license fees. The maximum revenue sharing amount that we may have been required to pay to CIRM was equal to nine (9) times the total amount awarded and received by us. We had the option to decline any and all amounts awarded by CIRM. As an alternative to revenue sharing, we had the option to convert the award to a loan, which such option we would have had to exercise on or before ten (10) business days after the FDA notifies us that it has accepted our application for marketing authorization. In the event that we exercise our right to convert the award to a loan, we would have been obligated to repay the loan within ten (10) business days of making such election, including interest at the rate of the three-month LIBOR rate plus 25% per annum. Since we may have been required to repay some or all of the amounts awarded by CIRM, the we accounted for this award as a liability rather than

revenue and accrued interest through June 20, 2017, at the aforementioned rates. As described in Note 1, we suspended the Phase 3 trial of ICT-107 and will not be required to return the CIRM funds that were spent on the trial. Consequently, during the year ended December 31, 2017, the we recognized a gain of $7,719,440 as derecognition of the CIRM award liability including accrued interest. As of December 31, 2017, we had $108,984 of unused CIRM funds, which are included in accrued expenses. Subsequent to December 31, 2017, we returned these funds to CIRM.

In August 2016, we raised approximately $6.6 million (after deducting underwriting discount and offering expenses) from the initial sale of 863,750 shares of our common stock, 881,250 base warrants to purchase shares of common stock at an exercise price of $7.68 per share, and 311,250 pre-funded warrants to purchase shares of common stock at an exercise price of $0.40 per share. The underwriters partially exercised their option to purchase additional shares and warrants and purchased an additional 37,500 shares of our common stock at a price of $6.00 per share and 111,965 pre-funded warrants to purchase shares of common stock at an exercise price of $0.40 per warrant. The pre-funded warrants have a term of ten years, and the base warrants have a term of five years from the date of issuance. The base warrants also provide for a weighted average adjustment to the exercise price if we issue, or is deemed to issue, additional shares of common stock at a price per share less than the effective price of the warrants, subject to certain exceptions. (see "Warrant Liability" below). The pre-funded warrants were substantially paid for at the time of the offering and have an exercise price of $0.40 per share and qualified for equity treatment. Through December 31, 2016, 208,750 pre-funded warrants were exercised and resulted in proceeds to us of $83,500. During the year ended December 31, 2017, 102,500 pre-funded warrants were exercised and we received $41,000 in proceeds.

In February 2015, we raised approximately $14.5 million (after commissions and offering expenses) from the sale of 666,250 shares of common stock and warrants to purchase 466,375 shares of common stock at an exercise price of $26.40 per share, to various investors in an underwritten public offering. Each unit, consisting of one share of common stock and 0.7 warrant, was priced at $24.00. The warrants have a term of five years from the date of issuance. The warrants also provide for a weighted-average adjustment to the exercise price if we issue, or are deemed to issue, additional shares of common stock at a price per share less than the then effective price of the warrants, subject to certain exceptions.

On April 18, 2013, we entered into a Controlled Equity Offering℠ Sales Agreement (the Sales Agreement) with Cantor Fitzgerald & Co., as agent (Cantor), pursuant to which we may offer and sell, from time to time through Cantor, shares of our common stock having an aggregate offering price of up to $25.0 million (of which only $17.0 million was initially registered for offer and sale). Under the Sales Agreement, Cantor may sell shares by any method permitted by law and deemed to be an "at-the-market" offering as defined in Rule 415 promulgated under the Securities Act, as amended, including sales made directly on the NYSE American, on any other existing trading market for our common stock or to or through a market maker. We may instruct Cantor not to sell shares if the sales cannot be effected at or above the price designated by us from time to time. We are not obligated to make any sales of the shares under the Sales Agreement. The offering of shares pursuant to the Sales Agreement will terminate upon the earlier of (a) the sale of all of the shares subject to the Sales Agreement or (b) the termination of the Sales Agreement by Cantor or the Company, as permitted therein. We will pay Cantor a commission rate of 3.0% of the aggregate gross proceeds from each sale of shares and have agreed to provide Cantor with customary indemnification and contribution rights. We will also reimburse Cantor for certain specified expenses in connection with entering into the Sales Agreement. On April 22, 2013, NYSE American approved the listing of 264,831 shares of our common stock in connection with the Sales Agreement. As of September 21, 2015, the registration statement previously filed with the SEC to facilitate the sale of registered shares of the Company's stock under the Controlled Equity Offering expired. The Company filed a new registration statement with the SEC that was declared effective on January 19, 2016 to facilitate the sale of additional shares under the Controlled Equity Offering. Under the terms of the prospectus, the Company may sell up to $15,081,494 of the Company's common stock through the aforementioned Controlled Equity Offering. Pursuant to Instruction I.B.6 to Form S-3 (the Baby Shelf Rules) the Company may not sell more than the equivalent of one-third of our public float during any 12 consecutive months so long as our public float is less than $75.0 million. During the year ended December 31, 2016, the Company sold 77,141 shares of our common stock under the Sales Agreement that resulted in net proceeds to the Company of approximately $691,187, of which $48,977 represented the recovery of deferred offering costs that had been incurred as of December 31, 2015. As of December 31, 2017, the Company had approximately $14.3 million available to be sold under the Sales Agreement. Our ability to use this Controlled Equity Offering may be impacted as a result of the going concern opinion we received from our auditors. See additional discussion in Note 6 to the audited financial statements that are included in this Form 10-K.

We may also in the future seek to obtain funding through strategic alliances with larger pharmaceutical or biomedical companies. We cannot be sure that we will be able to obtain any additional funding from either financings or alliances, or that the terms under which we may be able to obtain such funding will be beneficial to us. If we are unsuccessful or only partly successful in our efforts to secure additional financing, we may find it necessary to suspend or terminate some or all of our product development and other activities.

As of December 31, 2017, we had no long-term debt obligations, no capital lease obligations, or other similar long-term liabilities. We have no financial guarantees, debt or lease agreements or other arrangements that could trigger a requirement for an early payment or that could change the value of our assets, and we do not engage in trading activities involving non-exchange traded contracts.

Cash Flows

For the Year Ended December 31, 2017 and 2016

We used $16,671,777 of cash in our operations during the year ended December 31, 2017, compared to $19,864,442 during the year ended December 31, 2016. In June 2017, we suspended the phase 3 trial of ICT-107 and during the second half of 2017, our trial related expenses included the costs to wind down the trial. We wrote off our remaining supply inventories of approximately $2.3 million as we determined there were no alternative uses and the salvage value was estimated to be zero. We also expensed certain contractual obligation costs to wind down the trial. We did not incur any similar expenses in 2016. We expect that our ICT-107 expenses to continue to decrease in 2018 as our future costs are primarily limited to winding down the trial. During 2017, we also incurred expenses related to our Stem-to-T cell immunotherapies. We expect these expenses to increase in 2018. These increases were offset by significant reductions in expenses related to the wind down of the ICT-107 Phase 2 and ICT-121 trials. Our ICT-140 program remains on hold until we find a partner for this program.

During the year ended December 31, 2017, we incurred $3,772,040 of non-cash expenses consisting of $47,768 of depreciation and $492,185 of stock based compensation and $2,349,404 write-off of our supplies and $882,683 of accrued interest on the CIRM award. We also recorded a non-cash credit of $7,719,440 for the derecognition of the CIRM award liability. During the year ended December 31, 2016, we incurred a non-cash credit of $3,812,398 related to the revaluation of our warrant derivative sand we incurred a non-cash charge of $498,520 related to the increase in the number of warrants outstanding that was triggered by the underwritten public offering in February 2015 and we also accrued $1,311,836 of interest expense related to the CIRM award.

During the year ended December 31, 2017, we completed the aforementioned underwritten public offering and we received initial net proceeds of $4,048,078 (including $100,216 of deferred financing costs capitalized at December 31, 2016) from the sale of 5,000 shares of convertible preferred stock and warrants to acquire up to $9 million of additional convertible preferred stock. Through December 31, 2017, we received $7,815,125 net proceeds from the exercise of warrants issued as part of the July 2017 and August 2016 financings.

In August 2016, we entered into an underwriting agreement with Maxim Group LLC, pursuant to which we received net proceeds of approximately $6.6 million (after deducting the underwriting discount and offering expenses) from the initial sale of 863,750 shares of the Company's common stock, base warrants to purchase 881,250 shares of common stock at an exercise price of $7.68 per share, and pre-funded warrants to purchase 311,250 shares of common stock at an exercise price of $0.40 per share. The underwriters partially exercised their option to purchase additional shares and warrants, and purchased an additional 37,500 shares of our common stock at a price of $6.00 per share and base warrants to purchase 111,965 shares of common stock at $0.40 per warrant. The pre-funded warrants have a term of ten years and the base warrants have a term of five years from the date of issuance. They also provide for a weighted average adjustment to the exercise price if we issue, or are deemed to issue, additional shares of common stock at a price per share less than the then effective price of the warrants, subject to certain exceptions. Accordingly, these warrants were accounted for as derivative liabilities and $2.2 million of the net proceeds was allocated to the warrant derivative. The pre-funded warrants were substantially paid for at the time of the offering and have an exercise price of $0.40 per share. Through December 31, 2016, 208,750 pre-funded warrants were exercised and resulted in proceeds to the Company of $83,500. During 2017, the remaining 102,500 pre-funded warrants were exercised and resulted in proceeds to the Company of $41,000.

During 2016, we received $691,187, net of commissions and professional fees, through the sale of our common stock in our Controlled Equity Offering.

For the Year Ended December 31, 2016 and 2015

We used $19,864,442 of cash in our operations during the year ended December 31, 2016, compared to $19,039,401 during the year ended December 31, 2015. During 2016, we incurred expenses related to the initiation of our ICT-107 phase 3 trial. These expenses included site initiations, technology transfer to Europe and regulatory submissions in Canada and eight European countries. We began patient enrollment and randomized 14 patients. Additionally, we liberalized the enrollment criteria for ICT-121 and completed patient enrollment in phase 1. Also during 2016, we offset $2,220,766 of vendor deposits against trial related expenses. Our ICT-140 program remains on hold until we obtain financing sufficient to complete the ICT-107 trial or find a partner for this program.

During 2016, we incurred a non-cash credit of $3,812,398 related to the revaluation of our warrant derivatives and we incurred a non-cash charge of $498,520 related to the increase in the number of warrants outstanding that was triggered by the underwritten public offering in February 2015 and we also accrued $1,311,836 of interest expense related to the CIRM award. During 2015, we incurred a non-cash credit of $2,925,258 related to the revaluation of our warrant derivatives and we incurred a non-cash charge of $88,939 related to the increase in the number of warrants outstanding that was triggered by the underwritten public offering in February 2015 and we accrued $133,905 of interest expense related to the CIRM award.

During the year ended December 31, 2016, our investing cash flows used $4,015. During the year ended December 31, 2015, our investing cash flows used $169,750 primarily to acquire research equipment to support the phase 3 trial of ICT-107.

We received $8,701,094 from financing activities in 2016, consisting of $6,554,618 net proceeds from the issuance of common stock, warrants and pre-funded warrants in an underwritten public offering, $1,500,000 additional initial award from CIRM and $691,187, net of commissions and professional fees, through the sale of our common stock in our Controlled Equity Offering. Also during 2016, we incurred $44,711 of deferred financing costs. We received $18,591,336 from financing activities in 2015, consisting of $14,599,627 net proceeds, excluding $105,563 of deferred offering costs that were previously advanced by the Company, from the issuance of common stock and warrants in an underwritten public offering and $6,750 from the exercise of stock options. Also during 2015, we incurred $15,041 of deferred financing costs. The Company also received its initial $4,000,000 award from CIRM.

Off-Balance Sheet Arrangements

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

Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

Not applicable.

Item 8. Financial Statements and Supplementary Data.

Our consolidated financial statements and notes thereto and the related reports of Marcum LLP are included in this Annual Report on Form 10-K beginning at page F-1 and are incorporated herein by reference.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure.

None.

Item 9A. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in the reports that we file with the SEC under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms and that such information is accumulated and communicated to our management, including our principal executive and financial officers, as appropriate, to allow for timely decisions regarding required disclosure. As required by SEC Rule 15d-15(b), we carried out an evaluation, under the supervision and with the participation of our management, including our principal executive and financial officers, of the effectiveness of the design and operation of our disclosure controls and procedures as of December 31, 2017, which is the end of the period covered by this report. Based on the foregoing, our principal executive and financial officers 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 control over financial reporting, as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act, and for assessing the effectiveness of internal control over financial reporting.

Internal control over financial reporting is intended to provide reasonable assurance regarding the reliability of our financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States. Internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our assets, (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with accounting principles generally accepted in the United States and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors, and (3) provide

reasonable assurance regarding prevention or timely detection of unauthorized acquisitions, use, or disposition of our assets that could have a material effect on our consolidated financial statements.

Management, with the participation of our principal executive and financial officers, conducted an evaluation of the effectiveness of our internal control over financial reporting, as of December 31, 2017, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission in 2013. Based upon its evaluation, management concluded that, as of December 31, 2017, our internal control over financial reporting was effective.

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

Pursuant to applicable SEC rules and regulations, we are not required to obtain an attestation report of our independent registered public accounting firm regarding internal control over financial reporting.

Changes in Internal Control Over Financial Reporting

There was no change in our internal control over financial reporting during the quarter ended December 31, 2017 that materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information.

None.

PART III.

Item 10. Directors, Executive Officers and Corporate Governance.

Board of Directors

The following table sets forth the name, age and positions held by each of our directors. Directors are elected for a period of one year and until the next annual meeting at which their successors are duly elected.

Name	Age	Position(s)
Anthony Gringeri, Ph.D.	65	President, Chief Executive Officer and Director
Gary S. Titus[1][2][3][4][5]	58	Chairman of the Board and Secretary
Rahul Singhvi, Sc.D.(1)[2][3][4][5]	53	Director
John S. Yu, M.D.	54	Director

(1) Member of our Compensation Committee
(2) Member of our Nominating and Corporate Governance Committee
(3) Member of our Audit Committee
(4) Member of our Finance Committee
(5) Denotes independent Director

Business Experience and Directorships

The following describes the backgrounds of current directors. Our board of directors has determined that (a) all of our directors during the year ended December 31, 2017, other than Dr. Gringeri and Dr. Yu are independent directors as defined in the NYSE American rules governing members of boards of directors and (b) the members of our Audit Committee are independent under applicable SEC rules.

Anthony J. Gringeri, Ph.D.

Dr. Gringeri was appointed as Chief Executive Officer and a member of our board in December 2016. Previously, he served as our Senior Vice President - Strategic Resources from August 2013 to December 2016. From 2011 to 2012, Dr. Gringeri served as Vice President and Chief Development Officer of ViaCyte, where he was responsible for all preclinical, clinical and regulatory activities. From 2006 to 2009, Dr. Gringeri served as Chief Operating Officer for Amsterdam Molecular Therapeutics, responsible for corporate strategy and operations, business development, building the company's commercial capability, and playing a key role in its initial public offering. Prior to that, he worked with Amgen for 15 years in a series of executive leadership roles. He served as Vice President, Product Development, Executive Director, Scientific Operations, Vice President, Scientific Outreach and Licensing Operations, and Vice President, Project Management and Strategic Planning. Dr. Gringeri was the Product Development Team Leader responsible for the successful development and commercialization of ARANESP® (darbepoetin alfa), to treat anemia in patients with kidney failure as well as cancer patients. Dr. Gringeri holds a Ph.D. in pharmacology from the University of Rochester, and has authored multiple scientific publications. Because of Dr. Gringeri's extensive leadership skills and operational expertise, including his operational experience and deep understanding of our business as our Chief Executive Officer, we believe he is able to make valuable contributions to our Board of Directors.

Gary S. Titus

Mr. Titus was appointed as a director in December 2012 and was appointed as Chairman of the Board and Secretary in September 2015. Mr. Titus has more than 20 years of business experience in the healthcare and biopharmaceutical industries, primarily in senior management roles. Mr. Titus has served as Chief Financial Officer of UroGen Pharma LTD since July 2015. Prior to that from 2014 to 2015, Mr. Titus held the position of Chief Financial Officer of BioCardia, Inc. Prior to that, from 2008 to 2013, Mr. Titus was Senior Vice President and Chief Financial Officer at SciClone Pharmaceuticals, Inc. From 2006 to 2008, Mr. Titus was Senior Vice President of Finance and Chief Financial Officer at Kosan Biosciences, Inc. From 2003 to 2006, he was Chief Financial Officer and Vice President at Nuvelo, Inc. Earlier in his career, Mr. Titus held a variety of positions at other companies, including Metabolex, Inc., Intrabiotics Pharmaceuticals, Inc., Johnson & Johnson's healthcare division and LifeScan, Inc. Mr. Titus holds a Bachelor of Science degree in Accounting from University of South Florida and a Bachelor of Science degree in Finance from University of Florida and is a Certified Public Accountant (Inactive). Mr. Titus also

completed the Global BioExecutive Program at UC Berkeley's Haas School of Business. Because of Mr. Titus' extensive experience in the biomedical industry, we believe he is able to make valuable contributions to our Board of Directors.

Rahul Singhvi, Sc.D.

Dr. Singhvi has served as a director since June 2010 and served as our Lead Director from December 2010 until September 2015. He is the Chief Operating Officer of Takeda Vaccines, Inc. and is responsible for Takeda's global vaccine operations. Before joining Takeda, Dr. Singhvi was with Novavax, Inc., a biopharmaceutical company focused on developing novel, highly potent recombinant vaccines beginning in 2004 and served as President, Chief Executive Officer and a director of Novavax from August 2005 to April 2011. Dr. Singhvi was the Senior Vice President and Chief Operating Officer of Novavax from April 2005 to August 2005 and Vice President - Pharmaceutical Development and Manufacturing Operations from April 2004 to April 2005. For ten years prior to joining Novavax, Dr. Singhvi served in various positions with Merck & Co., Inc., culminating as Director of the Merck Manufacturing Division, where he helped develop several vaccines, including Zostavax ® , the only vaccine on the market to prevent shingles. Dr. Singhvi received his M.S. and Sc.D. degree in Chemical Engineering from the Massachusetts Institute of Technology. He also holds an M.B.A. from the Wharton School. Because of Dr. Singhvi's experience and knowledge in the operation and leadership of early stage public healthcare companies and extensive expertise and experience in the development and manufacturing of vaccines which may assist the Board in its oversight of our cancer vaccine programs, we believe he is able to make valuable contributions to our Board of Directors.

John S. Yu, M.D.

Dr. Yu has served as a director since November 2006. He served as Chairman of the Board and as our Chief Scientific Officer from January 2007 until September 2015. Dr. Yu also served as Interim Chief Executive Officer from August 2012 until November 2012. He is a member of the full-time faculty in the Department of Neurosurgery at Cedars-Sinai Medical Center where he has worked since 1997. An internationally renowned neurosurgeon, Dr. Yu's clinical focus is on the treatment of malignant and benign brain and spinal tumors. He is also conducting extensive research in immune and gene therapy for brain tumors. He has also done extensive research in the use of neural stem cells as delivery vehicles for brain cancers and neurodegenerative diseases. He was inducted into Castle and Connelly's America's Top Doctors in 2005. Dr. Yu has published articles in a number of prestigious journals, including The Lancet, Cancer Research, Cancer Gene Therapy, Human Gene Therapy, Journal of Neuroimmunology, Journal of Neurological Science and Journal of Neurosurgery. Dr. Yu earned his bachelor's degree in French literature and biological sciences from Stanford University and spent a year at the Sorbonne in Paris studying French literature. He also pursued a fellowship in immunology at the Institut Pasteur in Paris. He earned his medical degree from Harvard Medical School and master's degree from the Harvard University's Department of Genetics. He completed his neurosurgical residency at Massachusetts General Hospital in Boston. In addition, he was a Neuroscience Fellow at the National Institutes of Mental Health in the Neuroimmunology Unit at Massachusetts General Hospital from 1988 to 1989 and was a Culpepper Scholar at the Molecular Neurogenetics Unit at that hospital from 1993 to 1995. His other honors include the Preuss Award, Joint Section on Tumors, American Association of Neurological Surgeons and Congress of Neurologic Surgeons in 1995. He received the Academy Award from the American Academy of Neurological Surgery at its 1996 annual meeting. Other honors include the Young Investigator Award from the Congress of Neurological Surgeons in 2000, the National Brain Tumor Foundation Grant in 2001, and the Mahaley Clinical Research award from the American Association of Neurological Surgeons in 2005. Dr. Yu, as a recognized leader in the field of neurosurgery, has extensive knowledge of current therapies and therapies under development for the treatment of brain tumors and has participated in numerous clinical trials for potential therapies in this field. As our former Chief Scientific Officer and the co-inventor of our brain tumor vaccine technologies, Dr. Yu brings to the Board significant scientific expertise directly relevant to our product research and development activities.

Executive Officers

Our executive officers are Gary S. Titus, age 58, who serves as our Chairman of the Board and Secretary; Anthony Gringeri, Ph.D., age 65, who serves as our President and Chief Executive Officer; David Fractor, age 58, who serves as our Chief Financial Officer and Steven J. Swanson, Ph.D., age 62, who serves as our Senior Vice President - Research. Information about Mr. Titus and Dr. Gringeri is presented above under "Director Nominees."

Mr. Fractor has served in various capacities on a part-time basis since April 2011 and was appointed as our Chief Financial Officer on April 14, 2017. Since 2003, Mr. Fractor has been a consultant providing financial consulting and strategic planning services, including Sarbanes-Oxley compliance consulting services, to a variety of companies in a variety of industries. From 1999 through 2003, Mr. Fractor was the Chief Financial Officer of HemaCare Corporation, a publicly traded corporation which collects, manufactures, tests and distributes blood products to hospitals and provides blood services to

patients in hospital settings on an outsourcing basis. Mr. Fractor received his B.S. in Accounting from the University of Southern California in 1982 and is a certified public accountant and a member of AICPA and the California Society of CPAs.

Dr. Swanson has served as our Senior Vice President - Research since February 2015. Prior to joining ImmunoCellular, Dr. Swanson was an independent consultant advising biopharmaceutical companies on basic immunology research, bioanalytical procedures, immunogenicity assessment, regulatory affairs and product quality. Dr. Swanson spent 15 years at Amgen as Department Head for Clinical Immunology, a then-new department providing immunogenicity and cytometry support for all of Amgen's therapeutic proteins. Prior to joining Amgen, he led the immunoassay laboratory in the Biotechnology department at Schering Plough Research Institute. Dr. Swanson has been actively involved in multiple industry professional associations, including the American Association of Pharmaceutical Scientists (AAPS), where he is a Fellow, and was a co-author of AAPS-sponsored Industry White Papers that were incorporated into FDA and EMA Guidance for Immunogenicity Assessment. He was also an industry representative for the EMA Committee that developed the first Immunogenicity Recommendations, and was engaged by the FDA to train reviewers on immunogenicity assessment. Dr. Swanson has authored more than 60 publications. He holds a BA in chemistry/biology from North Central College, a PhD in microbiology from the University of Iowa, and completed a post-doctoral fellowship at The Ohio State University.

Committees of the Board of Directors

Our Board of Directors has established an Audit Committee, which currently consists of Mr. Titus, as Chair and Dr. Singhvi. The Audit Committee held four meetings during the 2017 fiscal year.

The Audit Committee assists the Board of Directors in fulfilling its oversight responsibilities relating to:

- the quality and integrity of our financial statements and reports;
- the independent registered public accounting firm's qualifications and independence; and
- the performance of our internal audit function and independent registered public accounting firm.

The Audit Committee appoints the independent registered public accounting firm, reviews with that accounting firm the plans and results of the audit engagement, approves permitted non-audit services provided by our independent registered public accounting firm and reviews that firm's independence. Mr. Titus has been designated as an "audit committee financial expert" as defined under Item 407(d)(5) of Regulation S-K of the Securities Exchange Act of 1934 (the "Exchange Act").

Our Board of Directors has established a Compensation Committee, which currently consists of Mr. Titus, as Chair and Dr. Singhvi. The Compensation Committee reviews, and makes recommendations to the full Board of Directors relating to, the compensation of our officers and directors, including our officers' annual salaries and bonuses and the terms and conditions of option grants to our officers and directors under our equity incentive plan. The Compensation Committee held two meetings during the 2017 fiscal year.

Our Board of Directors has established a Finance Committee currently consisting of Dr. Singhvi, as Chair and Mr. Titus . The Finance Committee has oversight responsibility for all material financial matters affecting the Company, including capital management, funding strategy and investing activities related to our financial position and financing activities. The Finance Committee did not hold any meetings during the 2017 fiscal year.

Our Board of Directors has established a Nominating and Corporate Governance Committee, which currently consists of Dr. Singhvi, as Chair and Mr. Titus. The Nominating and Corporate Governance Committee develops and recommends corporate governance guidelines to the Board, selects or recommends for selection nominees to serve on the Board, and oversees the evaluation of the Board and its committees. The Nominating and Corporate Governance Committee held one meeting during the 2017 fiscal year.

The Charters of the Audit, Compensation and Nominating and Corporate Governance Committees are available on our website at www.imuc.com.

Code of Ethics

Our Board of Directors has adopted a code of ethics covering all of our executive officers and key employees. A copy of our code of ethics is available on our website at www.imuc.com on the "Corporate Governance" page of the section titled "Investors." If we make any substantive amendments to the code of ethics or grant any waiver from a provision of the code of ethics to any executive officer or director, we will promptly disclose the nature of the amendment or waiver as required by applicable laws. To satisfy our disclosure requirements, we may post any waivers of or amendments to the code of ethics on our website in lieu of filing such waivers or amendments on a Form 8-K.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act requires our directors, executive officers, and holders of more than 10% of our common stock to file initial reports of ownership and changes in ownership with the SEC. Based on a review of such forms furnished to us and written representations from our executive officers and directors, we believe that during 2017 our directors, executive officers and 10% stockholders complied with all Section 16(a) filing requirements.

Item 11. Executive Compensation

Compensation of Named Executive Officers

The following table sets forth the compensation for services paid in all capacities for the two fiscal years ended December 31, 2017 to the following:

-
- Anthony Gringeri, Ph.D., who served as our Senior Vice President - Strategic Resources from August 2013 to December 13, 2016 and who serves as our President and Chief Executive Officer effective December 13, 2016;
- Steven J. Swanson, Ph.D., our Senior Vice President - Research; and
- David Fractor, our Chief Financial Officer effective April 14, 2017 (formerly our Vice President - Finance and Principal Accounting Officer).

In determining the compensation of executive officers, the Compensation Committee and the Board of Directors considered the performance of the executive officers, attainment of corporate goals, compensation of executive officers of similar biotechnology companies, and recommendations from a compensation consultant.

Summary Compensation Table

	Year	Salary ($)	Bonus ($)	Stock Awards ($) [7]	Option Awards ($) [7]	Non-Equity Incentive Plan Compensation ($)	Nonqualified Deferred Compensation Earnings ($)	All Other Compensation($)	Total Compensation ($)
Anthony Gringeri President and Chief Executive Officer	2017	375,000 (1)	68,400	0	0	0	0	0	443,400
	2016	341,443 (2)	27,548	24,750 (9)	52,093 (12)	0	0	0	445,834
Steven J. Swanson Senior Vice President - Research	2017	296,400 (3)	38,400	0	0	0	0	0	334,800
	2016	294,500 (4)	19,071	8,250 (10)	34,729 (13)	0	0	0	356,550
David Fractor Chief Financial Officer	2017	235,861 (5)	38,400	0	0	0	0	0	274,261
	2016	191,910 (6)	10,595	11,550 (11)	23,153 (14)	0	0	0	237,208

(1) Includes $31,250 per month for the period January 1, 2017 to December 31, 2017.
(2) Includes $27,536 per month for the period from January 1, 2016 through February 29, 2016 and $28,637 per month for the period from March 1, 2016 to December 31, 2016.
(3) Includes $24,700 per month for the period from January 1, 2017 to December 31, 2017.
(4) Includes $23,750 per month for the period from January 1, 2016 through February 29, 2016 and $24,700 per month for the period from March 1, 2016 to December 31, 2016.
(5) Includes $16,120 per month for the period from January 1, 2017 through March 31, 2017 and $20,833 per month for the period from April 1, 2017 through December 31, 2017.
(6) Includes $15,353 per month for the period from January 1, 2016 through February 29, 2016 and $16,120 per month for the period from March 1, 2016 to December 31, 2016.
(7) These columns represent restricted stock unit and option awards computed in accordance with FASB ASC Topic 718, excluding the effect of estimated forfeitures related to service-based vesting conditions. For additional information on the valuation assumptions with respect to the restricted stock unit and option grants, refer to Note 2 of our financial statements. These amounts do not correspond to the actual value that will be recognized by the named executives from these awards.
(8) Includes 3,750 restricted stock units granted on March 11, 2016, with each restricted stock unit representing a contingent right to receive one share of our common stock, vesting in full on the second anniversary of the grant.
(9) Includes 1,875 restricted stock units granted on March 11, 2016, with each restricted stock unit representing a contingent right to receive one share of our common stock, vesting in full on the second anniversary of the grant.

(10) Includes 625 restricted stock units granted on March 11, 2016, with each restricted stock unit representing a contingent right to receive one share of our common stock, vesting in full on the second anniversary of the grant.
(11) Includes 875 restricted stock units granted on March 11, 2016, with each restricted stock unit representing a contingent right to receive one share of our common stock, vesting in full on the second anniversary of the grant.
(12) Includes a ten-year option to purchase 8,750 shares of our common stock granted on March 11, 2016, at an exercise price of $13.20 per share, vesting in 48 equal monthly installment from the grant date. Vesting of this option was accelerated on December 31, 2016 and the option expired unexercised on September 16, 2017.
(13) Includes a ten-year option to purchase 3,750 shares of our common stock granted on March 11, 2016, at an exercise price of $13.20 per share, vesting in 48 equal monthly installment from the grant date.
(14) Includes a ten-year option to purchase 2,500 shares of our common stock granted on March 11, 2016, at an exercise price of $13.20 per share, vesting in 48 equal monthly installment from the grant date.

Outstanding Equity Awards

The following table sets forth information as of December 31, 2017 concerning unexercised options, unvested stock and equity incentive plan awards for the executive officers named in the Summary Compensation Table.

	Option Awards						Stock Awards		
Name	Grant Date	Number of Securities Underlying Unexercised Options (#) Exercisable		Number of Securities Underlying Unexercised Options (#) Unexercisable		Option Exercise Price ($)	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested		Market Value of Shares or Units of Stock That Have Not Vested ($) [10]
Anthony Gringeri, Ph.D.	9/20/2013	7,500	[1]	—	[1]	$108.00	9/19/2023	—		—
	3/7/2014	1,758	[2]	117	[2]	$ 53.60	3/6/2024	—		—
	3/20/2015	1,935	[3]	878	[3]	$ 23.20	3/20/2025	—		—
	3/20/2015	—	[4]	2,813	[4]	$ 23.20	3/20/2025	—		—
	3/11/2016	2,461	[3]	3,164	[3]	$ 13.20	3/10/2026	—		—
	3/11/2016	—		—				1,875	[7]	$600
Steven J. Swanson, Ph.D.	3/6/2015	6,016	[5]	2,734	[5]	$ 23.20	3/5/2025	—		—
	3/11/2016	1,641	[3]	2,109	[3]	$ 13.20	3/10/2026	—		—
	3/11/2016	—		—		—	—	625	[6]	$200
David Fractor	4/4/2011	1,050	[3]	-	[3]	$ 90.00	4/3/2018	—		—
	10/24/2011	250	[7]	-	[7]	$ 56.80	10/23/2018	—		—
	2/24/2012	250	[8]	-	[8]	$ 76.00	2/23/2019	—		—
	3/1/2013	1,600	[9]	-		$108.80	2/28/2020	—		—
	3/7/2014	469	[3]	31	[3]	$ 53.60	3/6/2024	—		—
	3/19/2015	859	[3]	391	[3]	$ 23.20	3/18/2025	—		—
	3/19/2015	—		1,250		$ 23.20	3/18/2025	—		—
	3/11/2016	1,094	[3]	1,406	[3]	$ 13.20	3/10/2026	—		—
	3/11/2016	—		—		—	—	875	[6]	$280

(1) Vested 1,875 on the one year anniversary of the Option Grant Date and then in 36 equal monthly installments thereafter.
(2) Vested 234 on the sixth month anniversary of the Option Grant Date and then in 42 equal monthly installments thereafter..

(3) Vests in monthly installments over a four year period following the Option Grant Date.
(4) Vests immediately if the average daily closing price of our common stock on the NYSE American during any10 consecutive trading pay period exceeds a closing $80.00 weighted average bid and ask price per share (as adjusted for any stock splits and the like).
(5) Vests 2,188 on the one year anniversary of the Option Grant Date and then in 36 equal monthly installments thereafter.
(6) Vests in full on the second anniversary of the grant date.
(7) Vested in 36 equal monthly installments.
(8) Vested in quarterly installments over a one year period following the Option Grant Date.
(9) Vested 400 on the one year anniversary of the Option Grant Date and then in 36 equal monthly installments thereafter.
(10) The market value is calculated using the closing price per share of our common stock of $0.32 per share on December 31, 2017.

Compensation of Directors

On August 2, 2012, the Board of Directors adopted certain revisions to the compensation program for non-employee directors. The annual cash retainer was increased to $30,000 for serving as a director, the fee for telephonic board meetings lasting more than one hour was increased to $1,500, the fee for committee meetings will be paid to the chair and other members of the committee and invited board members and the fee for committee meetings lasting more than one hour was increased to $1,000. The annual retainers paid to the Chairman of the Board and the Lead Director were increased to $5,500 and the annual retainers paid to the Audit Committee Chairman and the Chairs of the other board committees were increased to $11,000 and $5,500, respectively. The members of the Executive Committee will receive an annual retainer of $5,250 and $750 for committee meetings lasting up to one hour and $1,500 for meetings lasting more than one hour. In addition, seven-year non-qualified stock options to purchase shares of our common stock are to be granted annually on the date of the annual stockholders' meeting to each non-employee director at an exercise price equal to the last reported trading price of our common stock on that date, with such option to vest quarterly over the four-year period following the date of grant in the following amounts: Chairman of the Board - 1,250 shares, Lead Director - 1,250 shares, board members (other than Chair and Lead) 750 shares, Audit Committee Chair - 500 shares, Compensation Committee, Finance and Nominating and Corporate Governance Committee Chairs each to receive 250 shares, and members of Committees (other than Chairs) to receive 125 shares, with all vested options to be exercisable for 24 months after termination for any reason except termination for cause by us.

On June 17, 2016, the Board of Directors adopted certain revisions to the compensation program for non-employee directors. The annual cash retainer was increased to $35,000 for serving as a director and set at $50,000 for the Chairperson of the Board. The annual retainers paid to the Audit Committee Chairman and the Chairs of the other board committees were increased to $12,000 and $7,50, respectively. The members of the Audit Committee will receive an annual retainer of $7,500 and the members of the other board committees will receive an annual retainer of $5,000. All per-meeting fees were eliminated In addition, ten-year non-qualified stock options to purchase shares of our common stock are to be granted annually on the date of the annual stockholders' meeting to each non-employee director at an exercise price equal to the fair market value of our common stock on that date, with such option to vest quarterly over the four-year period following the date of grant, in an amount equal to $25,000 divided by the fair market value of our common stock on the date of grant.

On August 29, 2017, the he Board of Directors adopted certain revisions to the compensation program for non-employee directors. The annual cash retainer was decreased to $26,250 for serving as a director and to $37,500 for the Chairperson of the Board. The annual retainers paid to the Audit Committee Chairman and the Chairs of the other board committees were decreased to $9,000 and $5,625, respectively. The members of the Audit Committee will receive an annual retainer of $5,625 and the members of the other board committees will receive an annual retainer of $3,750. In addition, ten-year non-qualified stock options to purchase shares of our common stock are to be granted annually on the date of the annual stockholders' meeting to each non-employee director at an exercise price equal to the fair market value of our common stock on that date, with such option to vest quarterly over the four-year period following the date of grant, in an amount equal to $25,000 divided by the fair market value of our common stock on the date of grant.

The following table sets forth information concerning the compensation paid to each of our directors during 2017 for their services rendered as directors. The compensation of Mr. Gringeri, who serves as a director and as our President and Chief Executive Officer, is described in the Summary Compensation Table of Executive Officers.

Director Compensation for Fiscal Year 2017

Name	Fees Earned or Paid in Cash	Stock Awards	Option Awards	Non-Equity Incentive Plan Compensation	Nonqualified Deferred Compensation Earnings	All Other Compensation	Total
Gary S. Titus	$63,000	_	_	_	_	_	$ 63,000
Rahul Singhvi, Sc.D	$50,313	_	_	_	_	_	$ 50,313
John S. Yu, M.D	$35,000	_	_	_	_	_	$ 35,000
Gregg A. Lapointe	$21,250	_	_	_	_	_	$ 21,250
Mark A. Schlossberg	$23,750	_	_	_	_	_	$ 23,750
Andrew Gengos	$16,058	_	_	_	_	_	$ 16,058

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

Security Ownership of Certain Beneficial Owners and Management

The following table sets forth certain information regarding beneficial ownership of our common stock as of March 1, 2018 (a) by each person known by us to own beneficially 5% or more of any class of our common stock, (b) by each of our executive officers named in the Summary Compensation Table and our directors and (c) by all executive officers and directors of this company as a group. As of March 1, 2018, there were 41,928,356 shares of our common stock issued and outstanding. Unless otherwise noted, we believe that all persons named in the table have sole voting and investment power with respect to all the shares beneficially owned by them.

Name and Address of Beneficial Owner[1]	Shares Beneficially Owned [2]	Percent of Total
John S. Yu, M.D.	14,882[3]	*
Anthony Gringeri, Ph.D.	20,397[4]	*
David Fractor	8,997[5]	*
Rahul Singhvi, Sc.D.	12,820[6]	*
Steven J. Swanson, Ph.D.	9,322[7]	*
Gary S. Titus	9,478[8]	*
All executive officers and directors as a group (6 persons)	75,896[9]	0.18%

* Less than 1%.

(1) The address of each of the persons shown is c/o ImmunoCellular Therapeutics, Ltd., 30721 Russell Ranch Road, Suite 140, Westlake Village, California 91362..

(2) Beneficial ownership is determined in accordance with the rules of the Securities and Exchange Commission and generally includes voting or investment power with respect to securities. Shares of common stock subject to options, warrants and convertible securities currently exercisable or convertible, or exercisable or convertible within 60 days of March 1, 2018, are deemed outstanding, including for purposes of computing the percentage ownership of the person holding such option, warrant or convertible security, but not for purposes of computing the percentage of any other holder.

(3) Includes 14,374 shares of common stock underlying stock options that are exercisable within 60 days of March 1, 2018.

(4) Includes 14,472 shares of common stock underlying stock options that are exercisable within 60 days of March 1, 2018 and warrants to purchase 525 shares of common stock.

(5) Includes 5,915 shares of common stock underlying stock options that are exercisable within 60 days of March 1, 2018 and warrants to purchase 291 shares of common stock.

(6) Includes 12,445 shares of common stock underlying stock options that are exercisable within 60 days of March 1, 2018.

(7) Includes 8,697 shares of common stock underlying stock options that are exercisable within 60 days of March 1, 2018.

(8) Includes 8,778 shares of common stock underlying stock options that are exercisable within 60 days of March 1, 2018.

(9) Includes 64,864 shares of common stock underlying stock options that are exercisable within 60 days of March 1, 2018 and warrants to purchase 816 shares of common stock.

Equity Compensation Plan Information

The following table summarizes, as of December 31, 2017, (i) the number of shares of our common stock that are issuable under our equity compensation plans upon the exercise of outstanding options, warrants and other rights, (ii) the weighted-average exercise price of such options, warrants and rights, and (iii) the number of securities remaining available for future issuance under our equity compensation plans.

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)	Weighted-average exercise price of outstanding options, warrants and rights (b)(1)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)
Equity compensation plans approved by stockholders	95,592(2)	42.31	266,831
Equity compensation plans not approved by stockholders	—	—	—
Total	95,592(3)	42.31	266,831

(1) The calculation of the weighted-average exercise price of the outstanding stock options and rights excludes the shares of common stock included in column (a) that are issuable upon the vesting of then-outstanding restricted stock units because restricted stock units have no exercise price.

(2) Includes 3,937 shares to be issued pursuant to outstanding restricted stock units.

(3) Includes 3,937 shares to be issued pursuant to outstanding restricted stock units.

In February 2005, the Company adopted an Equity Incentive Plan (the Plan) that was approved by our stockholders. Initially, the Company reserved 150,000 shares of common stock for issuance under the Plan, which was subsequently increased by the Company's stockholders to 300,000 shares. Options to purchase 110,846 common shares were granted under the Plan and are outstanding as of December 31, 2016. Additionally, 6,500 shares of restricted common stock were granted to management and 1,000 shares of restricted common stock were granted to members of the Company's Board of Directors under the Plan and 3,250 shares remain unvested. This plan expired in January 2016.

On March 11, 2016, the Company's Board of Directors adopted the 2016 Equity Incentive Plan (the 2016 Plan) and reserved 250,000 shares of common stock for issuance under the 2016 Plan. The 2016 Plan was approved by the Company's stockholders at its 2016 Annual Meeting of Stockholders. During the year ended December 31, 2017, the Company's Board of Directors did not issue any stock options or restricted stock units.

Item 13. Certain Relationships and Related Transactions, and Director Independence.

Transactions with Related Persons

The company did not engage in any "transactions with related persons" as described under Item 404 of rules promulgated by the Securities and Exchange Commission during the years ended December 31, 2017 or December 31, 2016.

Independent Directors

Information regarding our independent directors is set forth above in Item 10, above, under the captions "Business Experience and Directorships" and "Committees of the Board," which information is incorporated herein by reference.

Item 14. Principal Accounting Fees and Services.

The Audit Committee appointed Marcum LLP as our independent registered public accounting firm for the fiscal years ended December 31, 2010 through 2017. The following table shows the fees that were paid or accrued by us for audit and other services provided by Marcum LLP during each of the years ended December 31, 2017 and 2016.

	2017	2016
Audit fees (1)	$182,835	$179,703
Audit-related fees (2)	-	-
Tax fees (3)	24,097	14,720
All other fees (4)	140,080	158,743
Total*	$347,012	$353,166

(1)Audit fees represent fees for professional services provided in connection with the audit of our annual financial statements and the review of our financial statements included in our Form 10-Q quarterly reports and services that are normally provided in connection with statutory or regulatory filings for the 2010 through 2017 fiscal years.

(2) Audit-related fees represent fees for assurance and related services that are reasonably related to the performance of the audit or review of our financial statements and not reported above under "Audit Fees."

(3) Tax fees represent fees for professional services related to tax compliance, tax advice and tax planning.

(4) These fees primarily represent fees for professional services related to the filing of various registration statements with the Securities and Exchange Commission and issuance of comfort letters to underwriters in connection with financing transactions.

*All audit related services, tax services and other services rendered by Marcum LLP were pre-approved by our Board of Directors or Audit Committee. The Audit Committee has adopted a pre-approval policy that provides for the pre-approval of all of the services that were performed for us by Marcum LLP. The policy authorizes the Audit Committee to delegate to one or more of its members pre-approval authority with respect to permitted services. Pursuant to this policy, the Audit Committee delegated such authority to the Chairman of the Audit Committee. All pre-approval decisions must be reported to the Audit Committee at its next meeting. The Audit Committee has concluded that the provision of the non-audit services listed above was compatible with maintaining the independence of Marcum LLP.

PART IV.

Item 15. Exhibits and Financial Statement Schedules

The company's consolidated financial statements and related notes thereto are listed and included in this Annual Report beginning on page F-1, which information is incorporated herein by reference. The following exhibits are filed with, or are incorporated by reference into, this Annual Report.

Exhibit	Description	Incorporation by Reference				Filed Herewith
		Form	SEC File No.	Exhibit	Filing Date	
2.1	Agreement and Plan of Reorganization dated as of May 5, 2005, as amended, among Patco Industries Subsidiary, Inc., William C. Patridge, and Spectral Molecular Imaging, Inc., as amended on June 30, 2005, September 26, 2005 and January 20, 2006	8-K	033-17624-NY	2.1	1/26/2006	
3.1	Amended and Restated Certificate of Incorporation	8-K	001-35560	3.1	11/3/2006	
3.2	Certificate of Amendment to Amended and Restated Certificate of Incorporation	8-K	001-35560	3.2	11/3/2006	
3.3	Certificate of Amendment to Amended and Restated Certificate of Incorporation	8-K	001-35560	3.1	5/9/2007	
3.4	Certificate of Amendment to Amended and Restated Certificate of Incorporation	10-Q	001-35560	3.1	11/14/2011	
3.5	Certificate of Amendment to Amended and Restated Certificate of Incorporation	8-K	001-35560	3.1	9/24/2013	
3.6	Certificate of Amendment to Amended and Restated Certificate of Incorporation	8-K	001-35560	3.1	11/19/2015	
3.7	Certificate of Amendment to Amended and Restated Certificate of Incorporation	8-K	001-35560	3.1	11/18/2016	
3.8	Certificate of Amendment to Amended and Restated Certificate of Incorporation	8-K	001-35560	3.1	6/22/2017	
3.9	Amended and Restated Bylaws	S-8	333-171652	3.1	1/11/2011	
3.10	Amendment to the Amended and Restated Bylaws	8-K	001-35560	3.1	5/25/2012	
3.11	Certificate of Designation of Preferences, Rights and Limitations of Series B 8.0% Mandatorily Convertible Preferred Stock	8-K	001-35560	3.1	7/21/2017	
4.1	Form of Common Stock Certificate of the Registrant	SB-2	333-140598	4.1	2/12/2007	
4.2	Form of Warrant to Purchase Common Stock, originally issued in February 2011	8-K	033-17264-NY	4.1	2/25/2011	
4.3	Form of Warrant to Purchase Common Stock, originally issued in January 2012	8-K	033-17264-NY	4.1	1/10/2012	
4.4	Form of Warrant to Purchase Common Stock, originally issued in October 2012	8-K	001-35560	10.1	10/19/2012	
4.5	Form of Warrant to Purchase Common Stock, originally issued in February 2015	10-Q	001-35560	4.1	5/11/2015	
4.6	Form of Base Warrant to Purchase Common Stock, originally issued in August 2016	S-1/A	001-35560	4.8	8/4/2016	
4.7	Form of Pre-Funded Warrant to Purchase Common Stock, originally issued in August 2016	S-1/A	001-35560	4.9	8/4/2016	

4.8	Form of Series 1 Preferred Stock Warrant	10-Q	001-35560	4.1	8/14/2017	
4.9	Form of Series 2 Preferred Stock Warrant	10-Q	001-35560	4.2	8/14/2017	
4.10	Form of Series 3 Preferred Stock Warrant	10-Q	001-35560	4.3	8/14/2017	
10.1	Amended and Restated 2006 Equity Incentive Plan of ImmunoCellular Therapeutics, Ltd.	10-Q	001-35560	10.1	11/14/2011	
10.2	Form of Non-Qualified Stock Option Agreement for the 2006 Equity Incentive Plan of ImmunoCellular Therapeutics, Ltd.	S-8	333-147278	4.5	11/9/2007	
10.3	Form of Incentive Stock Option Agreement for the 2006 Equity Incentive Plan of ImmunoCellular Therapeutics, Ltd.	S-8	333-147278	4.6	11/9/2007	
10.4†	Exclusive License Agreement dated as of November 17, 2006 between Cedars-Sinai Medical Center and ImmunoCellular Therapeutics, Ltd.	8-K	033-17264-NY	10.1	11/22/2006	
10.5†	First Amendment to Exclusive License Agreement dated as of June 16, 2008, between Cedars-Sinai Medical Center and ImmunoCellular Therapeutics, Ltd.	10-Q	033-17264-NY	10.2	08/14/2008	
10.6	Stock Purchase Agreement dated as of November 17, 2006 between Cedars-Sinai Medical Center and ImmunoCellular Therapeutics, Ltd.	8-K	033-17264-NY	10.3	11/22/2006	
10.7	Registration Rights Agreement dated as of November 17, 2006 between Cedars-Sinai Medical Center and ImmunoCellular Therapeutics, Ltd.	8-K	033-17264-NY	10.4	11/22/2006	
10.8	Securities Purchase Agreement dated as of November 17, 2006 between Dr. John Yu and ImmunoCellular Therapeutics, Ltd.	8-K	033-17264-NY	10.5	11/22/2006	
10.9**	Agreement dated as of November 17, 2006 between Dr. John Yu and ImmunoCellular Therapeutics, Ltd.	8-K	033-17264-NY	10.2	11/22/2006	
10.10**	Nonqualified Stock Option Agreement dated as of November 17, 2006 between Dr. John Yu and ImmunoCellular Therapeutics, Ltd.	8-K	033-17264-NY	10.6	11/22/2006	
10.11	Registration Rights Agreement dated as of November 17, 2006 between Dr. John Yu and ImmunoCellular Therapeutics, Ltd.	8-K	033-17264-NY	10.7	11/22/2006	
10.12	Agreement dated as of February 14, 2008 between Molecular Discoveries, LLC and ImmunoCellular Therapeutics, Ltd.	10KSB	033-17264-NY	10.20	03/25/2008	
10.13	Registration Rights Agreement dated as of April 14, 2008, between Molecular Discoveries, LLC and ImmunoCellular Therapeutics, Ltd.	S-1	333-150277	10.24	04/16/2008	
10.14	Agreement dated as of August 1, 2008 between Dr. Cohava Gelber and ImmunoCellular Therapeutics, Ltd.	10-K	001-35560	10.26	03/30/2009	
10.15	Second Amendment dated August 1, 2009 to Exclusive License Agreement dated as of November 17, 2006 between Cedars-Sinai Medical Center and ImmunoCellular Therapeutics, Ltd.	10-Q	033-17264-NY	10.1	11/13/2009	

10.16	Preferred Stock Purchase Agreement dated as of December 3, 2009 between ImmunoCellular Therapeutics, Ltd. and Socius Capital Group, LLC d/b/a Socius Life Sciences Capital Group, LLC.	8-K	033-17264-NY	10.1	12/7/2009	
10.17**	Agreement dated March 1, 2010 between Dr. John Yu and ImmunoCellular Therapeutics, Ltd.	10-K	033-17264-NY	10.36	03/31/2010	
10.18	Securities Purchase Agreement dated March 11, 2010 between participants in the March 2010 private placement and ImmunoCellular Therapeutics, Ltd.	10-Q	033-17264-NY	10.6	5/18/2010	
10.19	Form of Registration Rights Agreement dated as of March 29, 2010 between participants in the March 2010 private placement and ImmunoCellular Therapeutics, Ltd.	S-1/A	333-150277	10.27	05/12/2010	
10.20	Modification Agreement dated May 2, 2010 among Socius CG II, Ltd., Socius Life Sciences Capital Group, LLC and ImmunoCellular Therapeutics, Ltd.	S-1/A	333-150277	10.33	05/12/2010	
10.21	Third Amendment dated March 26, 2010 to Exclusive License Agreement dated as of November 17, 2006 between Cedars-Sinai Medical Center and ImmunoCellular Therapeutics, Ltd.	S-1/A	333-150277	10.35	05/12/2010	
10.22	Securities Purchase Agreement dated May 12, 2010 between participants in the May 2010 private placement and ImmunoCellular Therapeutics, Ltd.	10-Q	033-17264-NY	10.11	05/18/2010	
10.23	Form of Registration Rights Agreement between participants in the May 2010 private placement and ImmunoCellular Therapeutics, Ltd.	10-Q	033-17264-NY	10.12	05/18/2010	
10.24	Purchase Agreement, dated as of February 22, 2011, by and between the ImmunoCellular Therapeutics, Ltd. and each investor named therein.	8-K	033-17264-NY	10.1	2/25/2011	
10.25	Registration Rights Agreement, dated as of February 22, 2011, by and among ImmunoCellular Therapeutics, Ltd. and the investors named therein.	8-K	033-17264-NY	10.2	02/25/2011	
10.26†	Exclusive Sublicense Agreement dated May 28, 2010 between Targepeutics, Inc. and ImmunoCellular Therapeutics, Ltd.	10-K	033-17264-NY	10.48	03/31/2011	
10.27†	Sponsored Research and Vaccine Production Agreement dated January 1, 2011 between The Trustees of the University of Pennsylvania and ImmunoCellular Therapeutics, Ltd.	10-K	033-17264-NY	10.49	03/31/2011	
10.28	Placement agent agreement dated March 30, 2010 between Gilford Securities Incorporated and ImmunoCellular Therapeutics, Ltd.	10-K	033-17264-NY	10.50	03/31/2011	
10.29	Placement agent agreement dated April 7, 2010 between Scarsdale Equities LLC and ImmunoCellular Therapeutics, Ltd.	10-K	033-17264-NY	10.51	03/31/2011	
10.30	Consulting Agreement dated October 1, 2010 between JFS Investments and ImmunoCellular Therapeutics, Ltd.	10-K	033-17264-NY	10.52	03/31/2011	
10.31	Advisory services agreement dated October 1, 2010 between Garden State Securities Inc. and ImmunoCellular Therapeutics, Ltd.	10-K	033-17264-NY	10.53	03/31/2011	
10.32	Co-placement Agents Agreement dated January 31, 2011 among Summer Street Research Partners, Dawson James Securities, Inc. and ImmunoCellular Therapeutics, Ltd.	10-K	033-17264-NY	10.54	03/31/2011	

10.33**	Agreement dated as of March 13, 2011 between Dr. John Yu and ImmunoCellular Therapeutics, Ltd.	10-Q	033-17264-NY	10.4	08/18/2011	
10.34†	Patent License Agreement, effective February 10, 2012, among The Trustees of the University of Pennsylvania and ImmunoCellular Therapeutics, Ltd.	10-Q	033-17264-NY	10.50	03/21/2012	
10.35†	Exclusive License Agreement, effective February 16, 2012, between the Johns Hopkins University and ImmunoCellular Therapeutics, Ltd.	10-Q	033-17264-NY	10.51	03/21/2012	
10.36**	Form of Stock Option Grant Notice for the 2006 Equity Incentive Plan of ImmunoCellular Therapeutics, Ltd.	10-K	001-35560	10.55	03/11/2013	
10.37	Controlled Equity OfferingSM Sales Agreement dated April 18, 2013 between ImmunoCellular Therapeutics, Ltd. and Cantor Fitzgerald & Co.	8-K	001-35560	10.1	04/18/2013	
10.38**	Form of Indemnity Agreement between ImmunoCellular Therapeutics, Ltd. and each of its directors and executive officers.	10-Q	001-35560	10.1	05/10/2013	
10.39	Master Services Agreement dated September 1, 2010 between Averion International Corp. and ImmunoCellular Therapeutics, Ltd.	10-Q	001-35560	10.2	08/08/2013	
10.40**	Employment Agreement dated August 19, 2013 between Anthony Gringeri and ImmunoCellular Therapeutics, Ltd.	10-Q	001-35560	10.1	11/07/2013	
10.41†	Amendment No. 1 to the Exclusive License Agreement between the Johns Hopkins University and ImmunoCellular Therapeutics, Ltd.	10-Q	001-35560	10.2	11/07/2013	
10.42**	Amended and Restated 2006 Equity Incentive Plan of ImmunoCellular Therapeutics, Ltd.	10-Q	001-35560	10.3	11/07/2013	
10.43**	Amendment No. 1 to Amended and Restated 2006 Equity Incentive Plan of ImmunoCellular Therapeutics, Ltd.	10-Q	001-35560	10.4	11/07/2013	

10.44**	Form of Stock Option Grant Notice for the 2006 Equity Incentive Plan of ImmunoCellular Therapeutics, Ltd.	10-Q	001-35560	10.5	11/07/2013	
10.45	Master Services Agreement dated February 19, 2014 between Aptiv Solutions, Inc. and ImmunoCellular Therapeutics, Ltd.	10-Q	001-35560	10.49	03/14/2014	
10.46**	Employment Agreement dated January 30, 2015 between Steven J. Swanson and ImmunoCellular Therapeutics, Ltd.	10-Q	001-35560	10.1	5/11/2015	
10.47†	Agreement for GMP Manufacturing of ICT-107 dated March 13, 2015 between PharmaCell B.V. and ImmunoCellular Therapeutics, Ltd.	10-Q	001-35560	10.2	5/11/2015	
10.48†	Amended & Restated Exclusive License Agreement dated May 13, 2015 between Cedars-Sinai Medical Center and ImmunoCellular Therapeutics, Ltd.	10-Q	001-35560	10.2	8/7/2015	
10.49**	Form of Restricted Stock Unit Agreement for the 2006 Equity Incentive Plan of ImmunoCellular Therapeutics, Ltd.	10-Q	001-35560	10.1	8/7/2015	
10.50†	Services Agreement dated June 11, 20015 between ImmunoCellular Therapeutics, Ltd and PCT, LLC, a Caladrius Company	10-Q	001-35560	10.3	8/7/2015	
10.51†	Second Amendment to Exclusive License Agreement dated August 7, 2015 between ImmunoCellular Therapeutics, Ltd. and Johns Hopkins University	10-Q	001-35560	10.1	11/9/2015	
10.52**	Employment Agreement dated September 15, 2015 between David Fractor and ImmunoCellular Therapeutics. Ltd., as amended on September 14, 2016	10-Q	001-35560	10.2	11/9/2015	

10.53**	Independent Contractor Services Agreement effective as of October 1, 2015 between John Yu and ImmunoCellular Therapeutics, Ltd.	10-K	001-35560	10.57	3/30/2016	
10.54**	Amended and Restated Independent Contractor Services Agreement dated February 1, 2016 between John Yu and ImmunoCellular Therapeutics, Ltd.	10-Q	001-35560	10.1	5/13/2016	
10.55	2016 Equity Incentive Plan	S-1/A	333-211763	10.59	7/11/2016	
10.56	Forms of Stock Option Agreement, Notice of Grant of Stock Option, Restricted Stock Unit Grant Notice and Restricted Stock Award Grant Notice under the 2016 Equity Incentive Plan	S-1/A	333-211763	10.60	7/11/2016	
10.57	Non-Employee Director Compensation Plan	S-1/A	333-211763	10.61	7/11/2016	
10.58**	Separation Agreement dated December 13, 2016 between Andrew Gengos and ImmunoCellular Therapeutics, Ltd.	10-K	001-35560	10.62	3/9/2017	
10.59	Non-Employee Director Compensation Plan					X
23.1	Consent of Marcum LLP					X
24.1	Power of Attorney (see signature page hereto)					X
31.1	Certification of the registrant's Principal Executive Officer under Exchange Act Rule 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X
31.2	Certification of the registrant's Principal Financial Officer under Exchange Act Rule 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X
32.1	Certification of the registrant's Principal Executive Officer under 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.					X
32.2	Certification of the registrant's Principal Financial Officer under 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

** Indicates a management contract or compensatory plan or arrangement

† Certain portions of the exhibit have been omitted based upon a request for confidential treatment filed by us with the Securities and Exchange Commission. The omitted portions of the exhibit have been separately filed by us with the Securities and Exchange Commission.

SIGNATURES

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

IMMUNOCELLULAR THERAPEUTICS, LTD.

March 14, 2018

By: /s/ Anthony Gringeri

Anthony Gringeri, Ph.D.

President and Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Anthony Gringeri, Ph.D. and David Fractor or either of them, his or her attorney-in-fact, each with the power of substitution, for him or her in any and all capacities, to sign any amendments to this Annual Report on Form 10-K, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that each of said attorneys-in-fact, or his or her substitute or substitutes, may 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 behalf of the registrant and in the capacities and on the dates indicated

Signature	Title	Date
/s/ Anthony Gringeri Anthony Gringeri, Ph.D.	President, Chief Executive Officer and Director	March 14, 2018
/s/ David Fractor David Fractor	Chief Financial Officer	March 14, 2018
/s/ Rahul Singhvi Rahul Singhvi, Sc.D.	Director	March 14, 2018
/s/ Gary S. Titus Gary S. Titus	Director	March 14, 2018
/s/ John S. Yu John S. Yu, M.D.	Director	March 14, 2018

ImmunoCellular Therapeutics, Ltd.

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Audit Committee of the
Board of Directors and Shareholders of
ImmunoCellular Therapeutics, Ltd.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of ImmunoCellular Therapeutics, Ltd. (the "Company") as of December 31, 2017 and 2016, and the related consolidated statements of operations, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2017 and the related notes (collectively referred to as the "financial statements"). In our opinion, the consolidated 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 three 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 to the financial statements, the Company has experienced recurring losses and has a significant accumulated deficit. 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.

/s/ Marcum LLP

Marcum LLP

We have served as the Company's auditor since 2005.

Irvine, CA
March 14, 2018

ImmunoCellular Therapeutics, Ltd.
Consolidated Balance Sheets

	December 31, 2017	December 31, 2016
Assets		
Current assets:		
Cash and cash equivalents	$ 6,629,870	$ 11,437,118
Supplies for clinical trials	—	1,186,186
Other assets	378,787	791,485
Total current assets	7,008,657	13,414,789
Property and equipment, net	568	109,823
Supplies for clinical trials	—	1,309,648
Deposits	—	1,955,514
Deferred financing costs	—	100,216
Total assets	$ 7,009,225	$ 16,889,990
Liabilities and Shareholders' Equity		
Current liabilities:		
Accounts payable	$ 1,774,626	$ 1,342,126
Accrued compensation and benefits	290,516	1,109,864
Accrued liabilities	295,612	786,953
Total current liabilities	2,360,754	3,238,943
CIRM liability	—	6,945,741
Warrant liability	—	573,560
Total liabilities	2,360,754	10,758,244
Commitments and contingencies (Note 5)		
Shareholders' equity:		
Preferred stock $0.0001 par value, 1,000,000 shares authorized; 2 and 0 shares outstanding as of December 31, 2017 and December 31, 2016	—	—
Common stock, $0.0001 par value; 50,000,000 shares authorized; 41,913,256 and 3,444,859 shares issued and outstanding as of December 31, 2017 and December 31, 2016, respectively	4,191	344
Additional paid-in capital	121,087,939	102,354,844
Accumulated deficit	(116,443,659)	(96,223,442)
Total shareholders' equity	4,648,471	6,131,746
Total liabilities and shareholders' equity	$ 7,009,225	$ 16,889,990

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

ImmunoCellular Therapeutics, Ltd.

Consolidated Statements of Operations
For the Years Ended December 31,

	2017	2016	2015
Revenues	$ —	$ —	$ —
Expenses:			
Research and development	17,126,244	19,105,727	10,896,591
General and administrative	4,027,200	5,006,398	4,616,500
Total expenses	21,153,444	24,112,125	15,513,091
Loss before other income (expense) and taxes	(21,153,444)	(24,112,125)	(15,513,091)
Interest income	4,680	24,381	19,863
Interest expense	(882,683)	(1,311,836)	(133,905)
Financing expense	—	(498,520)	(88,939)
Change in fair value of warrant liability	—	3,812,398	2,925,258
Derecognition of CIRM liability	7,719,440	—	—
Loss before provision for income taxes	(14,312,007)	(22,085,702)	(12,790,814)
Provision for income taxes	—	—	—
Net loss	(14,312,007)	(22,085,702)	(12,790,814)
Deemed dividend on convertible preferred stock	(2,284,396)	—	—
Accretion of original issue discount on preferred stock	(1,033,470)	—	—
Preferred stock dividends	(10,024)	—	—
Deemed dividend from warrant repricing	(41,756)	—	—
Net loss attributable to common shareholders	$ (17,681,653)	$ (22,085,702)	$ (12,790,814)
Net loss attributable per share to common shareholders basic and diluted	$ (1.23)	$ (7.89)	$ (5.87)
Weighted average number of shares outstanding basic and diluted:	14,404,344	2,798,881	2,180,092

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

ImmunoCellular Therapeutics, Ltd.

Consolidated Statements of Shareholders' Equity

	Preferred Stock		Common Stock				
	Shares	Amount	Shares	Amount	Additional Paid-in Capital	Accumulated Deficit	Total
Balance at January 1, 2015	—	$ —	1,590,085	$ 159	$ 84,638,410	$ (61,346,926)	$ 23,291,643
Exercise of stock options	—	—	625	—	6,750	—	6,750
Cashless exercise of stock options	—	—	258	—	—	—	—
Stock based compensation	—	—	500	—	916,028	—	916,028
Common stock and warrants issued for cash during February 2015 at $24.00 per unit, net of offering costs	—	—	666,250	66	10,296,623		10,296,689
Net loss	—	—	—	—	—	(12,790,814)	(12,790,814)
Balance at December 31, 2015	—	—	2,257,718	225	95,857,811	(74,137,740)	21,720,296
Common stock issued through controlled equity offering at an average price of $10.00 per share	—	—	77,141	8	642,202		642,210
Common stock and warrants issued for cash during August 2016 at $6.40 per unit, net of offering costs	—	—	1,110,000	111	4,625,844		4,625,955
Stock based compensation	—	—	—	—	1,228,987		1,228,987
Net loss	—	—	—	—	—	(22,085,702)	(22,085,702)
Balance at December 31, 2016	—	—	3,444,859	344	102,354,844	(96,223,442)	6,131,746
Cumulative change in accounting principle	—	—	—	—	6,481,770	(5,908,210)	573,560
Exercise of warrants into common stock	—	—	102,500	10	40,990	—	41,000
Issuance of Series B preferred stock in public offering net of offering costs	5,000	—	—	—	3,396,522	—	3,396,522
Issuance of Warrants in public offering (net of offering costs)	—	—	—	—	551,340	—	551,340
Record beneficial conversion feature in connection with public offering	—	—	—	—	2,284,396	—	2,284,396
Acrete beneficial conversion feature in connection with public offering	—	—	—	—	(2,284,396)	—	(2,284,396)
Record original issue discount in connection with public offering	—	—	1,318,898	132	1,033,470	—	1,033,602
Acrete original issue discount in connection with public offering	—	—	—	—	(1,033,602)	—	(1,033,602)
Exercise of warrants into Series B preferred stock	7,918	1	—	—	7,774,124	—	7,774,125
Conversion of Series B preferred stock into common stock	(12,916)	(1)	37,014,155	3,702	(3,701)	—	—
Stock based compensation	—	—	4,216	—	492,185	—	492,185
Dividends paid on Series B preferred stock	—	—	28,628	3	10,021	—	10,024
Acrete dividends on Series B preferred stock	—	—	—	—	(10,024)	—	(10,024)
Financing charge related to repricing of warrants	—	—	—	—	41,756	—	41,756
Acrete financing charge related to repricing of warrants charged to additional paid in capital	—	—	—	—	(41,756)	—	(41,756)
Net loss	—	—	—	—	—	(14,312,007)	(14,312,007)
Balance at December 31, 2017	2	$ —	41,913,256	$ 4,191	$ 121,087,939	$ (116,443,659)	$ 4,648,471

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

ImmunoCellular Therapeutics, Ltd.

Consolidated Statements of Cash Flows
For the Years Ended December 31,

	2017	2016	2015
Cash flows from operating activities:			
Net loss	$ (14,312,007)	$ (22,085,702)	$ (12,790,814)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation	47,768	75,114	36,193
Accrued Interest on CIRM award	882,683	1,311,836	133,905
Loss on sale of property and equipment	1,706	—	—
Change in fair value of warrant liability	—	(3,812,398)	(2,925,258)
Financing expense	—	498,520	88,939
Write off of supplies for clinical trial	2,349,404	—	—
Stock-based compensation	492,185	1,228,987	916,028
Derecognition of CIRM award	(7,719,440)	—	—
Changes in assets and liabilities:			
Other assets	2,368,212	5,940	422,448
Supplies for clinical trials	146,430	(221,545)	(2,209,192)
Deposits	—	2,220,766	(3,657,913)
Accounts payable	490,955	125,363	805,320
Accrued liabilities	(1,419,673)	788,677	140,943
Net cash used in operating activities	(16,671,777)	(19,864,442)	(19,039,401)
Cash flows from investing activities:			
Purchase of property and equipment	—	(4,015)	(169,750)
Proceeds from sale of property and equipment	1,326	—	—
Net cash provided by (used in) investing activities	1,326	(4,015)	(169,750)
Cash flows from financing activities:			
Proceeds from exercise of stock options	—	—	6,750
Proceeds from the issuance of preferred stock and warrants in public offering	4,048,078	—	—
Proceeds from exercise of warrants	7,815,125	208,750	—
Deferred financing costs	—	(44,711)	(15,041)
Proceeds from CIRM award	—	1,500,000	4,000,000
Proceeds from issuance of common stock and warrants, net of offering costs	—	6,345,868	14,599,627
Proceeds from issuance of common stock through controlled equity offering	—	691,187	—
Net cash provided by financing activities	11,863,203	8,701,094	18,591,336
Decrease in cash and cash equivalents	(4,807,248)	(11,167,363)	(617,815)
Cash and cash equivalents, beginning of period	11,437,118	22,604,481	23,222,296
Cash and cash equivalents, end of period	$ 6,629,870	$ 11,437,118	$ 22,604,481
Supplemental cash flows disclosures:			
Interest expense paid	$ —	$ —	$ —
Income taxes paid	$ —	$ —	$ —
Supplemental non-cash financing disclosures:			
Deferred offering costs included in accounts payable	$ —	$ 55,505	$ —
Preferred stock dividends paid in common stock	$ 10,024	$ —	$ —
Preferred stock converted into common stock	$ 4,098	$ —	$ —

CIRM liability reclassified to other current liabilities	$ 108,984	$ —	$ —
Warrant derivatives reclassified to additional paid-in capital as part of change in accounting principle	$ 573,560	$ —	$ —
Net book value of property and equipment transferred to vendor as partial settlement of accounts payable	$ 58,455	$ —	$ —

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

ImmunoCellular Therapeutics, Ltd.

Notes to Consolidated Financial Statements

1. Nature of Organization (Planned Principal Operations Have Not Commenced)

ImmunoCellular Therapeutics, Ltd. (the Company) is seeking to develop and commercialize new therapeutics to fight cancer using the immune system. These consolidated financial statements include the Company's wholly owned subsidiaries, ImmunoCellular Bermuda, Ltd. in Bermuda and ImmunoCellular Therapeutics (Ireland) Limited and ImmunoCellular Therapeutics (Europe) Limited in Ireland. The Company has been primarily engaged in the acquisition of certain intellectual property, together with development of its product candidates and the recent clinical testing for its immunotherapy product candidates, and has not generated any recurring revenues.

In June 2017, the Company announced that it had determined it was unable to secure sufficient additional financial resources to complete the phase 3 registration trial of ICT-107, its patient-specific, dendritic cell-based immunotherapy for patients with newly diagnosed glioblastoma, which was previously its lead product candidate. As a result, the Company suspended the trial while it continues to seek a collaborative arrangement or acquisition of its ICT-107 program. The suspension of the phase 3 registration trial of ICT-107 has reduced the amount of cash used in the Company's operations.

As a result of suspending the ICT-107 trial, the Company recorded a charge to research and development of $2,349,404 during 2017 to write-off the remaining trial related supplies. The Company recorded a credit to other income of $7,719,440 to account for the derecognition of the CIRM award liability including accrued interest. Previously, the Company accounted for the award as a loan and accrued interest expense (See Note 7).

The Company is developing Stem-to-T-Cell immunotherapies for the treatment of cancer based on rights to novel technology it exclusively licensed from the California Institute of Technology (Caltech). The technology originated from the labs of David Baltimore, Ph.D., Nobel Laureate and President Emeritus at Caltech, and utilizes the patient's own hematopoietic stem cells to create antigen-specific killer T cells to treat cancer. The Company plans to utilize this technology to expand and complement its dendritic cell based cancer immunotherapy platform, with the goal of developing new immunotherapies that kill cancer cells in a highly directed and specific manner and that can function as monotherapies or in combination therapy approaches.

The Company also has two other product candidates: ICT-140 for ovarian cancer and ICT-121 for recurrent glioblastoma. During the third quarter of 2016, the Company completed its enrollment of ICT-121, and the trial was completed in March 2017. Currently, the Company is holding the initiation ICT-140 until it can find a partner to share expenses.

The Company has incurred operating losses and, as of December 31, 2017, the Company had an accumulated deficit of $116,443,659. The Company expects to incur significant research, development and administrative expenses before any of its products can be launched and recurring revenues generated.

The Company's activities are subject to significant risks and uncertainties, including the failure of any of the Company's product candidates to achieve clinical success or to obtain regulatory approval. Additionally, it is possible that other companies with competing products and technology might obtain regulatory approval ahead of the Company. The Company will need significant amounts of additional funding in order to complete the development of any of its product candidates and the availability and terms of such funding cannot be assured.

2. Summary of Significant Accounting Policies and Going Concern

Principles of Consolidation – The accompanying consolidated financial statements include the accounts of the Company and its subsidiaries. All significant intercompany balances and transactions have been eliminated in consolidation.

Basis of presentation and going concern - The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. Since inception, the Company has been engaged in research and development activities and has not generated any cash flows from operations. Through December 31, 2017, the Company has incurred accumulated losses of $116,443,659 and as of December 31, 2017, the Company had $6,629,870 of cash and working capital of $4,647,903 respectively. The Company believes that it will not have enough cash resources to fund the business for the next 12 months. Successful completion of the Company's research and development activities, and its transition to attaining profitable operations, is dependent upon obtaining additional financing. Additional financing may not be available on acceptable terms or at all. If the Company issues additional equity securities to raise funds, the ownership percentage of existing stockholders would be reduced. New investors may demand rights, preferences or privileges senior to those of existing holders of common stock. These factors raise substantial doubt about the Company's ability to continue as a going concern for

a period of one year from the date the financial statements are issued. These consolidated financial statements do not include any adjustment that might result from the outcome of this uncertainty.

In June 2017, the Company announced that it had determined it was unable to secure sufficient additional financial resources to complete the phase 3 registration trial of ICT-107. As a result, the Company suspended further patient randomization in the ICT-107 trial while it continues to seek a collaborative arrangement or acquisition of its ICT-107 program. The suspension of the phase 3 registration trial of ICT-107 has reduced the amount of cash used in the Company's operations.

In July 2017, the Company completed a financing that provided sufficient funds to wind down the phase 3 trial of ICT-107. The Company plans to improve its future liquidity by obtaining additional financing through the issuance of financial instruments such as equity and warrants or through the receipt of grants and awards. Additionally, the Company continues to evaluate its strategic alternatives, which may include a potential merger, consolidation, reorganization or other business combination, as well as the sale of the Company or the Company's assets.

Cash and cash equivalents—The Company considers all highly liquid instruments with an original maturity of 90 days or less at acquisition to be cash equivalents. As of December 31, 2017 and December 31, 2016, the Company had $466,875 and $3,462,617, respectively, of certificates of deposit. The Company places its cash and cash equivalents with various banks in order to maintain insurance on all of its investments.

Supplies for clinical trials—Supplies are stated at the lower of cost or net realizable value, with cost determined by the first-in, first-out basis and consist of items that will be used in the Company's ongoing clinical trials. With the suspension of the phase 3 trial of ICT-107, the Company determined that the remaining supplies should be expensed. Accordingly, during 2017, the Company recorded a charge to expense of $2,349,404, which is included in research and development expenses. The Company did not record any reserve for obsolescence during the year ended December 31, 2016.

Property and Equipment—Property and equipment are stated at cost and depreciated using the straight-line methods based on the estimated useful lives (generally three to five years) of the related assets. Computer and computer equipment are depreciated over three years. Management continuously monitors and evaluates the realizability of recorded long-lived assets to determine whether their carrying values have been impaired. The Company records impairment losses on long-lived assets used in operations when events and circumstances indicate that the assets might be impaired and the nondiscounted cash flows estimated to be generated by those assets are less than the carrying amount of those assets. Any impairment loss is measured by comparing the fair value of the asset to its carrying amount. Repairs and maintenance costs are expensed as incurred.

Research and Development Expenses—Research and development expenses consist of costs incurred for direct research and development and are expensed as incurred.

Stock Based Compensation—The Company records the cost for all share-based payment transactions in the Company's consolidated financial statements. Stock-based compensation expense is estimated as of the grant date based on the fair value of the award and is recognized as expense over the requisite service period, which generally equals the vesting period, based on the number of awards that are expected to vest. Estimating the fair value for stock options requires judgment, including the expected term of the Company's stock options, volatility of the Company's stock, expected dividends, risk-free interest rates over the expected term of the options and the expected forfeiture rate. In connection with performance-based programs, the Company makes assumptions principally related to the number of awards that are expected to vest after assessing the probability that certain performance criteria will be met.

Stock option grants issued to employees, officers and directors were valued using the Black-Scholes pricing model. The Company did not issue any stock-based compensation during the year ended December 31, 2017.

Fair value was estimated at the date of grant using the following weighted-average grant date assumptions:

	Year Ended December 31, 2017	Year Ended December 31, 2016	Year Ended December 31, 2015
Risk-free interest rate	—%	1.31%	1.80%
Expected dividend yield	None	None	None
Expected life	0.00 years	5.73 years	6.48 years
Expected volatility	—%	82.20%	93.4%
Expected forfeitures	—%	—%	—%

The weighted-average grant-date fair value of options granted during the years ended December 31, 2016, and 2015 was $8.00 and $13.60, respectively.

The risk-free interest rate used is based on the implied yield currently available in U.S. Treasury securities at maturity with an equivalent term. The Company has not declared or paid any dividends and does not currently expect to do so in the future. The expected term of options represents the period that the stock-based awards are expected to be outstanding and was determined based on projected holding periods for the remaining unexercised shares. Consideration was given to the contractual terms of our stock-based awards, vesting schedules and expectations of future employee behavior. The expected volatility is based upon the historical volatility of the Company's common stock. Forfeitures are accounted for when they occur.

The Company's stock price volatility and option lives involve management's best estimates, both of which impact the fair value of the option calculated and, ultimately, the expense that will be recognized over the life of the option.

When options are exercised, the Company's policy is to issue reserved but previously unissued shares of common stock to satisfy share option exercises. As of December 31, 2017, the Company had 2,912,629 shares of authorized and unreserved common stock. As of December 31, 2017, the Company had 266,831 shares of common stock reserved for its stock option plan.

No tax benefits were attributed to the stock-based compensation expense because a valuation allowance was maintained for all net deferred tax assets.

Income Taxes—The Company accounts for federal and state income taxes under the liability method, with a deferred tax asset or liability determined based on the difference between the financial statement and tax basis of assets and liabilities, as measured by the enacted tax rates. The Company's provision for income taxes represents the amount of taxes currently payable, if any, plus the change in the amount of net deferred tax assets or liabilities. A valuation allowance is provided against net deferred tax assets if recoverability is uncertain on a more likely than not basis. As of December 31, 2017 and 2016, the Company fully reserved its deferred tax assets. The Company recognizes in its consolidated financial statements the impact of an uncertain tax position if the position will more likely than not be sustained upon examination by a taxing authority, based on the technical merits of the position. The Company's policy is to recognize interest related to unrecognized tax benefits as interest expense and penalties as operating expenses. As of December 31, 2017 and 2016, the Company had no unrecognized tax benefits and as such, no liability, interest or penalties were required to be recorded. The Company does not expect this to change significantly in the next twelve months. The Company has determined that its main taxing jurisdictions are the United States of America and the State of California. The Company is not currently under examination by any taxing authority nor has it been notified of a pending examination. The Company's tax returns are generally no longer subject to examination for the years before December 31, 2014.

During 2014, the Company licensed the non-U.S. rights to a significant portion of its intellectual property to its Bermuda-based subsidiary for approximately $11.0 million. The fair value of the intellectual property rights was determined by an independent third party. The proceeds from this sale represent a gain for U.S. tax purposes and were offset by current year losses and net operating loss carryforwards. However, the Internal Revenue Service, or the IRS, or the California Franchise Tax Board, or the CFTB, could challenge the valuation of the intellectual property rights and assess a greater valuation, which would require the Company to utilize a portion, or all, of its available net operating losses. If an IRS or a CFTB valuation exceeds the available net operating losses, the Company would incur additional income taxes. The Company's ability to use its net operating losses is subject to the limitations of IRS Section 382, as well as expiration of federal and state net operating loss carryforwards.

Fair Value of Financial Instruments – The carrying amounts reported in the balance sheets for cash, cash equivalents, and accounts payable approximate their fair values due to their quick turnover. Previously, the Company estimated the fair

value of warrant derivative liability using the Binomial Lattice option valuation model for warrants that are not publicly traded. The Company determined the fair value of the warrant derivative liability of its publicly traded warrants based upon the last trading price as of the balance sheet date. Effective July 1, 2017, the Company early adopted ASU No. 2017-11, which specifies that financial instruments with down round protection should be accounted for as equity rather than as derivatives. Accordingly, the Company reclassified its derivatives warrants from liabilities to equity (see Note 6).

Fair value for financial reporting is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. The Company utilizes a fair value hierarchy which requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. The three levels of inputs that may be used to measure fair value are as follows:

Level 1 - quoted prices in active markets for identical assets or liabilities

Level 2 - quoted prices for similar assets and liabilities in active markets or inputs that are observable

Level 3 - inputs that are unobservable (for example cash flow modeling inputs based on assumptions)

Warrant liabilities represent the only financial assets or liabilities recorded at fair value by the Company. The fair value of warrant liabilities are determined based on Level 1 or Level 3 inputs (See Note 6).

Reverse Stock Split - On November 18, 2016, the Company effected a one-for-forty reverse stock split of its common stock through an amendment to its amended and restated certificate of incorporation (the "COI Amendment"). As of the effective time of the reverse stock split, every forty shares of the Company's issued and outstanding common stock were converted into one issued and outstanding share of common stock, without any change in par value per share. The reverse stock split affected all shares of the Company's common stock outstanding immediately prior to the effective time of the reverse stock split, as well as the number of shares of common stock available for issuance under the Company's equity incentive plans and outstanding warrants. No fractional shares were issued as a result of the reverse stock split. Stockholders who would otherwise have been entitled to receive a fractional share received cash payments in lieu thereof. In addition, the COI Amendment reduced the number of authorized shares of common stock to 25.0 million.

In June 2017, the Company's stockholders approved a certificate of amendment to its amended and restated certificate of incorporation to increase the number of authorized shares of common stock from 25.0 million to 50.0 million, which was effective on June 16, 2017.

As the par value per share of the Company's common stock remained unchanged at $0.0001 per share, a total of $8,805 was reclassified from common stock to additional paid-in capital during 2016. All references to shares of common stock and per share data for all periods presented in the accompanying financial statements and notes thereto have been adjusted to reflect the reverse stock split on a retroactive basis.

Use of Estimates—The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make certain estimates and assumptions about the future outcome of current transactions which may affect the reporting and disclosure of these transactions. Accordingly, actual results could differ from those estimates used in the preparation of these consolidated financial statements.

Warrant Liability - The fair value of the Company's derivative warrants that are not traded on the NYSE American was previously estimated using the Binomial Lattice option valuation model. The use of the Binomial Lattice option valuation model requires estimates including the volatility of the Company's stock, risk-free rates over the expected term of warrants and early exercise of the warrants. The Company determined the warrant derivative liability of its publicly traded warrants based upon the last trading price as of the balance sheet date. As described below, the Company adopted ASU No. 2017-11 effective July 1, 2017, and reclassified its warrant derivatives from liabilities to equity.

Basic and Diluted Net Loss per Common Share—Basic and diluted net loss per common share are computed based on the weighted average number of common shares outstanding plus the pre-funded warrants (see Note 6) that were substantially paid for at the time of issuance. Common share equivalents (which consist of options and warrants other than the pre-funded warrants) are excluded from the computation of diluted net loss per share for the years ended December 31, 2017, 2016 and 2015, since the effect would be antidilutive. Common share equivalents which could potentially dilute basic earnings per share in the future, and which were excluded from the computation of diluted net loss per share, totaled 1,550,739, 1,871,222 and 485,524 shares at December 31, 2017, 2016 and 2015, respectively.

Recently Issued Accounting Standards— In February 2016, the FASB issued ASU No. 2016-02, which requires lessees to recognize in the balance sheets, a liability to make lease payments (the lease liability) and a right-of-use asset representing its right to use the underlying asset for the lease term (the lease asset). For leases with a term of 12 months or less, a lessee is permitted to make an accounting policy election by class of underlying asset not to recognize lease assets and lease liabilities. In transition, lessees and lessors are required to recognize and measure leases at the beginning of the earliest period presented using a modified retrospective approach. This ASU is effective for fiscal years beginning after December 15, 2018. The adoption of this ASU is not expected to have a material impact on the Company's consolidated results of operations, finance condition or liquidity.

In May 2017, the FASB issued ASU No. 2017-09, which provides guidance about which changes to the terms or conditions of a share-based payment award require an entity to apply modification accounting in Topic 718. An entity is required to apply modification accounting unless, 1) The fair value of the modified award is the same as the fair value of the original award immediately before the original award is modified, 2) The vesting conditions of the modified award are the same as the vesting conditions of the original award immediately before the original award is modified, and 3) The classification of the modified award as an equity instrument or a liability instrument is the same as the classification of the original award immediately before the original award is modified. This ASU is effective for annual periods beginning after December 15, 2017, and early adoption is permitted. The adoption of this ASU is not expected to have a material impact on the Company's consolidated results of operations, finance condition or liquidity.

In July 2017, the FASB issued ASU No. 2017-11, which changes the classification analysis of certain equity-linked financial instruments (or embedded features) with down round features. When determining whether certain financial instruments should be classified as liabilities or equity instruments, a down round feature no longer precludes equity classification when assessing whether the instrument is indexed to an entity's own stock. ASU No. 2017-11 also clarifies existing disclosure requirements for equity-classified instruments. As a result, a freestanding equity-linked financial instrument (or embedded conversion option) no longer would be accounted for as a derivative liability at fair value as a result of the existence of a down round feature. For freestanding equity classified financial instruments, ASU No. 2017-11 requires entities to recognize the effect of the down round feature when calculating earnings per share. That effect is treated as a dividend and as a reduction of income available to common shareholders in basic earnings per share. ASU No. 2017-11 is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. Early adoption is permitted, including adoption in an interim period. If an entity early adopts ASU No. 2017-11 in an interim period, adjustments should be reflected as of the beginning of the interim period in either of the following ways: 1. Retrospectively to outstanding financial instruments with a down round feature by means of a cumulative-effect adjustment to the statement of financial position as of the beginning of the first fiscal year and interim period(s) in which ASU No. 2017-11 is effective or 2. Retrospectively to outstanding financial instruments with a down round feature for each prior reporting. The Company has elected to adopt ASU No. 2017-11 effective July 1, 2017 retrospectively to outstanding financial instruments with a down round feature by means of a cumulative-effect adjustment to the Company's beginning accumulated deficit as of January 1, 2017. (See Note 6).

Other recent accounting pronouncements issued by the FASB (including its Emerging Issues Task Force) and the Securities Exchange Commission (the SEC) did not or are not believed by management to have a material impact on the Company's present or future consolidated financial statements.

3. Property and Equipment

Property and equipment consist of the following:

	December 31, 2017	December 31, 2016
Computers	$ 16,907	$ 70,960
Research equipment	—	305,066
	16,907	376,026
Accumulated depreciation	(16,339)	(266,203)
	$ 568	$ 109,823

All of the research equipment is held by the Company's vendors. Depreciation expense was $47,768, $75,114 and $36,193 for the years ended December 31, 2017, 2016 and 2015, respectively.

4. Related-Party Transactions

Cedars-Sinai Medical Center License Agreement

Dr. John Yu, the Company's founder and member of the Company's Board of Directors, is a neurosurgeon at Cedars-Sinai Medical Center (Cedars-Sinai).

On May 13, 2015, the Company entered into an Amended and Restated Exclusive License Agreement (the Amended License Agreement) with Cedars-Sinai to amend and restate the terms of the Original License Agreement. Pursuant to the Amended License Agreement, the Company acquired an exclusive, worldwide license from Cedars-Sinai to certain patent rights and technology developed in the course of research performed at Cedars-Sinai into the diagnosis of diseases and disorders in humans and the prevention and treatment of disorders in humans utilizing cellular therapies, including dendritic cell-based vaccines for brain tumors and other cancers and neurodegenerative disorders. Under the Amended License Agreement, the Company will have exclusive rights to, among other things, develop, use, manufacture, sell and grant sublicenses to the licensed technology.

The Company has agreed to pay Cedars-Sinai specified milestone payments related to the development and commercialization of ICT-107, ICT-121 and ICT-140. Among other milestone payments, the Company will be required to pay to Cedars-Sinai $1.1 million upon first commercial sale of the Company's first product. The Company will pay Cedars-Sinai single digit percentages of gross revenues from the sales of products and high-single digit to low-double digit percentages of the Company's sublicensing income based on the licensed technology. During 2016, the Company incurred $100,000 of licensing fees to Cedars-Sinai in connection with the commencement of the phase 3 clinical trial of ICT-107. The Company did not incur any licensing fees to Cedars-Sinai during the years ended December 31, 2017 or December 31, 2015.

The Amended License Agreement will terminate on a country-by-country basis on the expiration date of the last-to-expire licensed patent right in each such country. Either party may terminate the Amended License Agreement in the event of the other party's material breach of its obligations under the Agreement if such breach remains uncured 60 days after such party's receipt of written notice of such breach. Cedars-Sinai may also terminate the Amended License Agreement upon 30 days written notice to the Company that a required payment by the Company to Cedars-Sinai under the Amended License Agreement is delinquent.

The Company has also entered into various sponsored research agreements with Cedars-Sinai. For the years ended December 31, 2017, 2016 and 2015, the Company incurred research expenses from Cedars-Sinai of $0, $0, and $55,200 respectively. As of December 31, 2017, Cedars-Sinai is not performing any research activities on behalf of the Company.

5. Commitments and Contingencies

Legal Proceedings

On May 1, 2017, a purported securities class action lawsuit was filed in the United States District Court for the Central District of California, captioned Arthur Kaye IRA FCC as Custodian DTD 6-8-00 v. ImmunoCellular Therapeutics, Ltd. et al (Case No. 2:17-cv-03250) against the Company, certain of its current and former officers and directors and others. On July 21, 2017, the court appointed lead plaintiffs in the matter. On August 24, 2017, lead plaintiffs filed Consolidated First Amended Complaint. On September 26, 2017, the court granted the parties' stipulation to allow lead plaintiffs to file a Consolidated Second Amended Complaint (the "SAC"). The SAC asserts violations of Sections 10(b) and 20(a) of the Securities Exchange Act of 1934, as amended, and SEC Rule 10b-5 promulgated thereunder, related to allegedly materially false or misleading statements made between May 1, 2012 and May 30, 2014. The complaint alleges, among other things, that the Company failed to disclose that it purportedly paid for articles to be published about ICT-107. Lead plaintiffs seek an award of unspecified damages, prejudgment and post-judgment interest, as well as reasonable attorneys' fees, and other costs. On November 10, 2017, the Company filed a motion to dismiss the SAC. The parties completed briefing on December 21, 2017 and the motion to dismiss is currently under submission. The Company intends to vigorously defend against the claims. It is possible that similar lawsuits may yet be filed in the same or other courts that name the same or additional defendants.

On July 27, 2017, a shareholder filed a derivative class action lawsuit in the Superior Court for the State of California in the County of Los Angeles, captioned David Wiener, Derivatively and on Behalf of ImmunoCellular Therapeutics, Ltd. v. certain former and current officers and directors (Case No. BC670134). The complaint sets forth violations of, 1) breach of

fiduciary duty, 2) unjust enrichment, 3) abuse of control, 4) gross mismanagement and 5) waste of corporate assets. The complaint alleges that the lack of oversight allowed the publication of articles about ICT-107 without disclosing that the articles were either directly, or indirectly, paid for by the Company. The complaint further alleges that from May 1, 2012 to April 2017, certain of its current and former officers and directors failed to disclose that the stock promotion scheme in fact occurred or was occurring, the extent of it, as well as the Company's involvement. The plaintiff seeks an award of unspecified damages, prejudgment and post-judgment interest, as well as reasonable attorneys' fees, and other costs. The Company intends to vigorously defend against the claims. The Company may be obligated to indemnify its officers and directors in connection with this matter. On January 9, 2018, the parties agreed to stay the derivative class action until resolution of the securities class action. The court granted the stay on January 25, 2018.

Commitments

In an effort to expand the Company's intellectual property portfolio to use antigens to create personalized vaccines, the Company has entered into various intellectual property and research agreements. Those agreements are long-term in nature and are discussed below. In addition to the vendors described below, the Company has deposits with other vendors.

Licensing Agreements

The John Hopkins University Licensing Agreement

On February 23, 2012, the Company entered into an Exclusive License Agreement, effective as of February 16, 2012, with The John Hopkins University (JHU) under which it received an exclusive, world-wide license to JHU's rights in and to certain intellectual property related to mesothelin-specific cancer immunotherapies. The Company is advancing a cancer vaccine program using JHU and other intellectual property according to commercially reasonable development timeline. If successful and a product ultimately is registered, the Company will either sell the product directly or via a third-party partnership.

Pursuant to the License Agreement, the Company agreed to pay an upfront licensing fee in the low hundreds of thousands of dollars, payable half in cash and half in shares of its common stock in two tranches, within 30 days of the effective date of the License Agreement and upon issuance of the first U.S. patent covering the subject technology. Annual minimum royalties or maintenance fees increase over time and range from low tens of thousands to low hundreds of thousands of dollars. In addition, the Company has agreed to pay milestone license fees upon completion of specified milestones, totaling single digit millions of dollars if all milestones are met. Royalties based on a low single digit percentage of net sales are also due on direct sales, while third party sublicensing payments will be shared at a low double digit percentage.

The Company and JHU each have termination rights that include termination for any reason and for reasons relating to specific performance or financial conditions. Effective September 24, 2013, the Company entered into an Amendment No. 1 to the Exclusive License Agreement that updated certain milestones. Effective August 7, 2015, the Company entered into a Second Amendment to Exclusive License Agreement that amended certain sections of the License Agreement and further updated certain milestones.

California Institute of Technology

On September 9, 2014, the Company entered into an Exclusive License Agreement with the California Institute of Technology (Caltech) under which the Company acquired exclusive rights to novel technology for the development of certain Stem-to-T-cell immunotherapies for the treatment of cancers.

Pursuant to the License Agreement, the Company agreed to pay a one time license fee, a minimum annual royalty based on a low single digit percentage of net revenues and an annual maintenance fee in the low tens of thousands of dollars. In addition, the Company has agreed to make certain milestone payments upon completion of specified milestones.

Cedars-Sinai Medical Center

In connection with the Cedars-Sinai Medical Center License Agreement, the Company has certain commitments as described in Note 4.

Summary of Employment Agreements

The Company has employment agreements with its management that provide for base salary, bonus, grants of stock options and restricted stock and severance. The aggregate base salary payable to this group is approximately $920,000 and the potential bonus is approximately $280,000. During the years ended December 31, 2016 and 2015, the Company issued an

aggregate of 825,000 and 1,125,000 stock options to its management at a weighted average exercise price of $13.20 and $23.20, respectively. No stock options were issued to management during 2017. All of the aforementioned stock options vest over a period of 4 years. Additionally, during the years ended December 31, 2016 and 2015, the Company issued 3,375 and 6,500 restricted shares of the Company's common stock that will vest over a period of 2 years. Certain members of management are also entitled to severance payments in the event of a change in control or termination without cause. The aggregate potential severance payments to management is approximately $920,000.

6. Shareholders' Equity

On November 16, 2015, the Company amended its Amended and Restated Certificate of Incorporation to increase the number of authorized shares of common stock from 149.0 million to 249.0 million. The stockholders of the Company approved the increase in authorized shares at a special meeting of the stockholders held on November 16, 2015. On November 18, 2016, upon the stockholder approval of a one-for-forty reverse stock split and the amendment to the Company's amended and restated certificate of incorporation, the number of authorized shares of common stock was reduced to 25.0 million. In June 2017, the Company's stockholders approved a certificate of amendment to its amended and restated certificate of incorporation to increase the number of authorized shares of common stock from 25.0 million to 50.0 million, which was effective on June 16, 2017.

Common Stock

July 2017 financing

In July 2017, the Company entered into an underwriting agreement with Maxim Group, LLC, pursuant to which the Company sold 5,000 shares of Series B 8% Mandatorily Convertible Preferred Stock (the "Preferred Stock") and related warrants (the "Warrants") to purchase up to 9,000 shares of Preferred Stock for net proceeds of approximately $4.0 million excluding proceeds from the exercise of the Warrants. In addition to the 8% cumulative dividend, each share of Preferred Stock includes an 8% original issue discount such that the public offering price of each share of Preferred Stock was $1,000, compared to a stated value of $1,080. The Preferred Stock is convertible into common stock by dividing the stated value by the conversion price. The conversion price equal to the lesser of (i) $1.22, subject to certain adjustments, and (ii) 87.5% of the lowest volume weighted average price of our common stock during the ten trading days ending on, and including, the date of the notice of conversion. The conversion price described in (ii) is subject to a floor of $0.35, except in the event of anti-dilution adjustments.The Warrants consist of three tranches with expirations in October 2017, January 2018 and July 2018. Each tranche allows the holders to purchase up to 3,000 shares of Preferred Stock at a price of $1,000 per share. If fully exercised, each tranche would provide the Company with $3.0 million of additional financing ($9.0 million in total) before underwriting discounts and commissions. Upon exercise, the Warrant holders receive shares of Preferred Stock that are convertible into common stock on the same terms described above.

Through December 31, 2017, holders of Preferred Stock converted 4,998 shares of the Preferred Stock into 13,899,219 shares of the Company's common stock. Additionally, investors exercised Warrants for the issuance of 7,918.38 shares of Preferred Stock and simultaneously converted those shares into 24,433,834 shares of common stock. The Company received gross proceeds of $7,918,380 from the exercise of the Warrants. The Company assessed the warrants as meeting the criteria for equity classification and allocated the proceeds based on the relative fair values of the base instruments (the Series B preferred stock and the warrants).

The Company performed a valuation of the Preferred Stock and associated warrants. The warrants were valued using a Monte Carlo simulation model. Based upon that valuation, the Company allocated the net proceeds between the Preferred Stock and Warrants of approximately $3.5 million and $500,000, respectively. In addition, the Company evaluated the conversion feature of the Preferred Stock to assess whether it met the definition of a beneficial conversion feature ("BCF"). Assuming all 5,000 shares of Preferred Stock will convert into common stock at the $0.35 floor price, and taking the 8% original issue discount into consideration, the Company will issue 15,428,571 shares of common stock, which provides an effective conversion price of $0.28 for accounting purposes. As the fair value of a share of common stock of $0.38 exceeded the effective conversion price of $0.28 at the issuance date, the Preferred Stock contained a BCF. The intrinsic value of the BCF of $1,548,544 was recorded as a discount to the Preferred Stock and a credit to additional paid in capital. The BCF was immediately recorded as a dividend. To the extent that warrant holders exercise their warrants and the conversion price of the Preferred Stock is less than the market price of the stock on the date of exercise, the Company recognizes a BCF. For warrant exercises between the initial closing and December 31, 2017, the Company recognized an additional BCF of $735,852. The total BCF recognized during 2017 was $2,284,396.The Company also recognized a dividend related to the 8% original issue discount as the investors are entitled to received $5,400,000 in common stock, which exceeded their $5,000,000 investment. Accordingly, the Company recognized a $400,000 dividend at closing. Additionally, as Warrants are exercised and shares of Preferred Stock are issued the investors benefit from the 8% original issue discount and the Company records a dividend to

reflect the original issue discount. For warrant exercises and related conversions of preferred stock between the initial closing and December 31, 2017, the Company recognized an additional dividend of $633,470. The total original issue discount recognized during 2017 was $1,033,470 and resulted in the issuance of 1,318,898 shares of common stock.

August 2016 financing

In August 2016, the Company raised approximately $6.6 million (after deducting underwriting discount and offering expenses) from the initial sale of 863,750 shares of the Company's common stock, 881,250 base warrants to purchase shares of common stock at an exercise price of $7.68 per share, and 311,250 pre-funded warrants to purchase shares of common stock at an exercise price of $0.40 per share. The underwriters partially exercised their option to purchase additional shares and warrants and purchased an additional 37,500 shares of the Company's common stock at a price of $6.00 per share and 111,965 pre-funded warrants to purchase shares of common stock at an exercise price of $0.40 per warrant. The pre-funded warrants have a term of ten years, and the base warrants have a term of five years from the date of issuance. The base warrants also provide for a weighted average adjustment to the exercise price if the Company issues, or is deemed to issue, additional shares of common stock at a price per share less than the effective price of the warrants, subject to certain exceptions. (see "Warrant Liability" below). Due to the potential variability of their exercise price, the base warrants did not qualify for equity treatment. The pre-funded warrants were substantially paid for at the time of the offering and have an exercise price of $0.40 per share and qualified for equity treatment. Through December 31, 2016, 208,750 pre-funded warrants were exercised and resulted in proceeds to the Company of $83,500. During the year ended December 31, 2017, 102,500 pre-funded warrants were exercised and the Company received $41,000 in proceeds.

February 2015 financing

In February 2015, the Company raised approximately $14.5 million (after commissions and offering expenses) from the sale of 666,250 shares of common stock and warrants to purchase 466,375 shares of common stock at an exercise price of $26.40 per share, to various investors in an underwritten public offering. Each unit, consisting of one share of common stock and 0.7 warrant, was priced at $24.00. The warrants have a term of five years from the date of issuance. The warrants also provide for a weighted-average adjustment to the exercise price if the Company issues or is deemed to issue additional shares of common stock at a price per share less than the then effective price of the warrants, subject to certain exceptions.

Controlled Equity Offering

On April 18, 2013, the Company entered into a Controlled Equity Offering℠ Sales Agreement (the Sales Agreement) with Cantor Fitzgerald & Co., as agent (Cantor), pursuant to which the Company may offer from time to time through Cantor, shares of our common stock having an aggregate offering price of up to $25.0 million (of which $17.0 million was initially registered for offer and sale). Under the Sales Agreement, Cantor may sell shares by any method permitted by law and deemed to be an “at-the-market” offering as defined in Rule 415 promulgated under the Securities Act, as amended, including sales made directly on the NYSE American, on any other existing trading market for our common stock or to or through a market maker. The Company may instruct Cantor not to sell shares if the sales cannot be effected at or above the price designated by us from time to time. The Company is not obligated to make any sales of the shares under the Sales Agreement. The offering of shares pursuant to the Sales Agreement will terminate upon the earlier of (a) the sale of all of the shares subject to the Sales Agreement or (b) the termination of the Sales Agreement by Cantor or the Company, as permitted therein. Cantor will receive a commission rate of 3% of the aggregate gross proceeds from each sale of shares and the Company has agreed to provide Cantor with customary indemnification and contribution rights. The Company will also reimburse Cantor for certain specified expenses in connection with entering into the Sales Agreement. On April 22, 2013, NYSE American approved the listing of 264,831 shares of our common stock in connection with the Sales Agreement. As of September 21, 2015, the registration statement previously filed with the SEC to facilitate the sale of registered shares of the Company's common stock under the Controlled Equity Offering expired. The Company filed a new registration statement with the SEC that was declared effective on January 19, 2016 to facilitate the sale of additional shares under the Controlled Equity Offering. Under the terms of the prospectus, the Company may sell up to $15,081,494 of the Company's common stock through the aforementioned Controlled Equity Offering. Pursuant to Instruction I.B.6 to Form S-3 (the Baby Shelf Rules), the Company may not sell more than the equivalent of one-third of its public float during any 12 consecutive months so long as the Company's public float is less than $75.0 million. During the year ended December 31, 2016, the Company sold 77,141 shares of common stock under the Sales Agreement that resulted in net proceeds to the Company of approximately $691,187 of which $48,977 represented the recovery of deferred offering costs that had been incurred as of December 31, 2015. There were no sales during 2017. As of December 31, 2017, the Company had approximately $14.3 million available to be sold under the Sales Agreement.

Stock Options

In February 2005, the Company adopted an Equity Incentive Plan (Plan). Pursuant to the Plan, a committee appointed

by the Board of Directors may grant, at its discretion, qualified or nonqualified stock options, stock appreciation rights and may grant or sell restricted stock to key individuals, including employees, nonemployee directors, consultants and advisors. Option prices for qualified incentive stock options (which may only be granted to employees) issued under the plan 100% of the fair market value of the common stock on the date the option is granted (unless the option is granted to a person who, at the time of grant, owns 10% of the total combined voting power of all classes of stock of the Company; in which case the option price may not be 110% of the fair market value of the common stock on the date the option is granted). Option prices for nonqualified stock options issued under the Plan are at the discretion of the committee and may be equal to, greater or less than fair market value of the common stock on the date the option is granted. The options vest over periods determined by the Board of Directors and are exercisable no later than ten years from date of grant (unless they are qualified incentive stock options granted to a person owning more than 10% of the total combined voting power of all classes of stock of the Company, in which case the options are exercisable no later than five years from date of grant). Initially, the Company reserved 150,000 shares of common stock for issuance under the Plan which was subsequently increased to 300,000 shares. Options to purchase 59,812 common shares have been granted under the Plan and are outstanding as of December 31, 2017. Additionally, 6,500 shares of restricted common stock have been granted to management and 1,000 shares of restricted common stock have been granted to members of the Company's board of directors. The plan expired in January 2016.

On March 11, 2016, the Company's Board of Directors adopted the 2016 Equity Incentive Plan (the 2016 Plan) and reserved 250,000 shares of common stock for issuance under the 2016 Plan. The 2016 Plan was approved by the Company's stockholders at its 2016 Annual Meeting of Stockholders. During the year ended December 31, 2016, the Company's Board of Directors granted 48,444 stock options and 7,862 restricted stock units to certain directors, officers and employees. The options have an exercise price equal to the closing stock price on the date of grant. The stock options vest over a period of four years and the restricted stock units vest over a period of two years. There were no grants of stock options or restricted stock units during 2017.

The following table summarizes stock option activity for the Company during the three years ended December 31, 2017:

	Options	Weighted Average Exercise Price	Weighted Average Contractual Term	Aggregate Intrinsic Value
Outstanding December 31, 2014	232,869	$ 53.20		
Granted	46,075	$ 21.60		
Exercised	(1,250)	$ 10.80		
Forfeited or expired	(9,697)	$ 70.40		
Outstanding December 31, 2015	267,997	$ 47.20		
Granted	48,444	$ 11.61		
Exercised	—	$ —		
Forfeited or expired	(153,776)	$ 40.63		
Outstanding December 31, 2016	162,665	$ 43.11		
Granted	—	$ —		
Exercised	—	$ —		
Forfeited or expired	(71,009)	$ 65.06		
Outstanding December 31, 2017	91,656	$ 42.31	5.68	$ —
Vested or expected to vest at December 31, 2017	73,448			

As of December 31, 2017, the total unrecognized compensation cost related to unvested stock options amounted to $194,420, which will be amortized over the weighted-average remaining requisite service period of approximately 10 months.

Warrants

In July 2017, the FASB issued ASU No. 2017-11, which changes the classification analysis of certain equity-linked financial instruments (or embedded features) with down round features. When determining whether certain financial instruments should be classified as liabilities or equity instruments, a down round feature no longer precludes equity classification when assessing whether the instrument is indexed to an entity's own stock. ASU No. 2017-11 also clarifies existing disclosure requirements for equity-classified instruments. As a result, a freestanding equity-linked financial instrument (or embedded conversion option) no longer would be accounted for as a derivative liability at fair value as a result of the existence of a down round feature. For freestanding equity classified financial instruments, ASU No. 2017-11 requires entities

to recognize the effect of the down round feature when calculating earnings per share. That effect is treated as a dividend and as a reduction of income available to common shareholders in basic earnings per share. ASU No. 2017-11 is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. Early adoption is permitted, including adoption in an interim period. If an entity early adopts ASU No. 2017-11 in an interim period, adjustments should be reflected as of the beginning of the interim period in either of the following ways: 1. Retrospectively to outstanding financial instruments with a down round feature by means of a cumulative-effect adjustment to the statement of financial position as of the beginning of the first fiscal year and interim period(s) in which ASU No. 2017-11 is effective or 2. Retrospectively to outstanding financial instruments with a down round feature for each prior reporting. The Company has elected to adopt ASU No. 2017-11 effective July 1, 2017 retrospectively to outstanding financial instruments with a down round feature by means of a cumulative-effect adjustment to the Company's beginning accumulated deficit as of January 1, 2017. The January 1, 2017 cumulative-effect adjustment to the Company's financial position is as follows:

	As Reported	Cumulative Effect Adjustment	Adjusted
Derivative Liability	$ 573,560	$ (573,560)	$ —
Additional Paid-In Capital	$ 102,354,844	$ 6,481,770	$ 108,836,614
Accumulated Deficit	$ (96,223,442)	$ (5,908,210)	$ (102,131,652)

In February 2011, the Company completed a common stock private placement and issued warrants to purchase 70,467 shares of the Company's common stock at $90.00 per share. The warrants had a term of five years and contained a provision whereby the warrant exercise price would be decreased in the event that certain future common stock issuances are made at a price less than $62.00. Due to the potential variability of their exercise price, these warrants did not qualify for equity treatment, and therefore were recognized as a liability. As a result of the January 2012, October 2012, and February 2015 financings and shares sold through the Company's Controlled Equity Offering, the exercise price of the warrants was adjusted to $57.60 and the number of warrants was proportionately increased to 91,670 net of exercises. In February 2016, the remaining warrants to purchase 91,670 shares of the Company's common stock expired.

In connection with the January 2012 underwritten public offering, the Company issued to the investors warrants to purchase 118,618 shares of the Company's common stock at $56.40 per share. The warrants had a term of five years from the date of issuance. In January 2017, the remaining 35,454 warrants expired.

In connection with the October 2012 underwritten public offering, the Company issued to the investors warrants to purchase 112,500 shares of the Company's common stock at $106.00 per share. The warrants had a term of five years from the date of issuance. In October 2017, the remaining 111,119 warrants expired.

In connection with the February 2015 underwritten public offering, the Company issued to the investors warrants to purchase 466,369 shares of the Company's common stock at $26.40 per share. The warrants have a term of five years and contain a provision whereby the warrant exercise price would be decreased in the event that certain future common stock issuances are made at a price less than $26.40. Due to the potential variability of their exercise price, these warrants did not qualify for equity treatment, and therefore were recognized as a liability. During 2016, the exercise price of these warrants was adjusted to $20.00 to reflect the shares sold under the Company's controlled equity offering and the August 2016 public offering. The Company initially valued these warrants using a binomial lattice simulation model assuming (i) dividend yield of 0%; (ii) expected volatility of 97%; (iii) risk free rate of 1.53% and (iv) expected term of five years. Based upon these calculations, the Company allocated $4,197,375 of the underwritten public offering to the freestanding warrants. For the years ended December 31, 2016 and 2015, the Company revalued these warrants using the binomial lattice simulation model and recorded a credit to other income of 2,024,611 and 2,238,600, respectively. As a result of the July 2017 financing, the exercise price of these warrants was adjusted to $10.55 and the Company recorded a dividend of $6,984. As of the July 1, 2017 adoption of ASU No. 2017-11, the Company reclassified the remaining warrant liability of 7,302 to additional paid in capital. As of December 31, 2017 warrants to purchase 466,369 shares of the Company's common stock remain outstanding.

In connection with the August 2016 underwritten public offering, the Company issued 311,250 pre-funded warrants to purchase shares of common stock to certain investors. These pre-funded warrants were substantially paid for at the time of issuance, have a term of ten years from the date of issuance and an exercise price of $0.40 per share. During 2016, pre-funded warrants to purchase 208,750 shares of common stock were exercised. In June 2017, the remaining pre-funded warrants to purchase 102,500 shares of common stock were exercised and the Company received $41,000.

Also in connection with the August 2016 underwritten public offering, the Company issued 993,115 warrants to purchase shares of the common stock with an initial exercise price of $7.68 per share. The warrants contain a provision whereby the warrant exercise price would be proportionately decreased in the event that future common stock issuances are made at a price less than $7.68 per share. Due to the potential variability of their exercise price, these warrants did not qualify for equity treatment, and therefore were recognized as a liability. These warrants are traded on the NYSE American (symbol IMUC.WS). The Company initially valued these warrants using the closing price on August 12, 2016 at $2.30, which was the first day the warrants were traded on the NYSE American. Accordingly, the Company allocated 2,284,395 of the total proceeds from the August 2016 offering to the base warrants. As of December 31, 2016, the warrants were valued using the last trading price of the year at $0.50, accordingly, the warrant liability was adjusted to $496,608 and the Company recorded a credit to other income of $1,787,787. As of the July 1, 2017 adoption of ASU No. 2017-11, the Company reclassified the remaining warrant liability of $20,560 to additional paid in capital. As a result of the July 2017 financing, the exercise price of these warrants was adjusted to $4.15 and the Company recorded a dividend of $34,772. As of December 31, 2017, warrants to purchase 993,115 shares of the Company's common stock remain outstanding.

In connection with the July 2017 underwritten public offering, the Company issued three tranches of warrants with expirations in October 2017, January 2018 and July 2018. Each tranche allows the holders to purchase up to 3,000shares of Preferred Stock at a price of $1,000 per share. If fully exercised, each tranche would provide the Company with $3.0 million of additional financing ($9.0 million in total). Upon exercise, the Warrant holders receive shares of Preferred Stock that are subject to the 8% original issue discount. The Preferred Stock is convertible into common stock using a conversion price equal to the lesser of (i) $1.22, subject to certain adjustments, and (ii) 87.5% of the lowest volume weighted average price of our common stock during the ten trading days ending on, and including, the date of the notice of conversion. The conversion price described in (ii) is subject to a floor of $0.35, except in the event of anti-dilution adjustments.

The exercises through December 31, 2017, are summarized below:

	Granted	Exercised	Remaining
Series 1 warrants	$ 3,000,000	$ 3,000,000	$ —
Series 2 warrants	3,000,000	2,845,200	154,800
Series 3 warrants	3,000,000	2,073,200	926,800
Totals	$ 9,000,000	$ 7,918,400	$ 1,081,600

The table below reconciles the beginning and ending balances for all warrant liabilities measured at fair market value for the three years ended December 31, 2017.

	2017	2016	2015
Beginning Balance, January 1	$ 573,560	$ 1,958,775	$ 597,719
Issuance of warrants and effect of repricing	—	2,427,183	4,286,314
Exercise of warrants	—	—	—
(Gain) or loss included in earnings	—	(3,812,398)	(2,925,258)
Transfers in and/or out of Level 3	—	—	—
Cumulative effect of adoption of ASU No. 2017-11	(573,560)	—	—
Ending Balance December 31,	$ —	$ 573,560	$ 1,958,775

7. California Institute of Regenerative Medicine Award

On September 18, 2015, the Company received an award in the amount of $19,919,449 from the California Institute of Regenerative Medicine (CIRM) to partially fund the Company's phase 3 trial of ICT-107. The award provided for a $4,000,000 initial payment, which was received during the fourth quarter of 2015, and up to $15,919,449 in future milestone payments that were primarily dependent on patient enrollment in the ICT-107 phase 3 trial. In August 2016, the Company and CIRM modified the award such that the Company received an additional $1.5 million initial payment. The total amount of the award and other award conditions remained unchanged. Under the terms of the CIRM award, the Company was obligated to share future ICT-107 related revenue with CIRM. The percentage of revenue sharing was dependent on the amount of the award received by the Company and whether the revenue was from product sales or license fees. The maximum revenue sharing amount the Company may have been required to pay to CIRM was equal to nine (9) times the total amount awarded and received by the Company. The Company had the option to decline any and all amounts awarded by CIRM. As an alternative to revenue sharing, the Company had the option to convert the award to a loan, which such option the Company must exercise on or before ten (10) business days after the FDA notifies the Company that it has accepted the Company's application for marketing authorization. In the event the Company exercises its right to convert the award to a loan, it would have been

obligated to repay the loan within ten (10) business days of making such election, including interest at the rate of the three-month LIBOR rate plus 25% per annum. Since the Company may have been required to repay some or all of the amounts awarded by CIRM, the Company accounted for this award as a liability rather than revenue and accrued interest through June 20, 2017, at the aforementioned rates. As described in Note 1, the Company suspended the Phase 3 trial of ICT-107 and will not be required to return the CIRM funds that were spent on the trial. Consequently, during the year ended December 31, 2017, the Company recognized a gain of $7,719,440 as derecognition of the CIRM award liability including accrued interest. As of December 31, 2017, the Company had $108,984 of unused CIRM funds, which are included in accrued expenses. Subsequent to December 31, 2017, the Company returned these funds to CIRM.

8. 401(k) Profit Sharing Plan

The Company has adopted a Profit Sharing Plan that qualifies under Section 401(k) of the Internal Revenue Code. Contributions to the plan are at the Company's discretion. The Company did not make any matching contributions during the years ended December 31, 2017 and 2016.

9. Income Taxes

Deferred taxes represent the net tax effects of the temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes. Temporary differences result primarily from the recording of tax benefits of net operating loss carry forwards and stock-based compensation.

As of December 31, 2017, the Company has an insufficient history to support the likelihood of ultimate realization of the benefit associated with the deferred tax asset. Accordingly, a valuation allowance has been established for the full amount of the net deferred tax asset.

The Tax Cuts and Jobs Act (the "Act") was enacted in December 2017. Among other things, the primary provision of Tax Reform impacting the Company is the reduction to the U.S. corporate income tax rate from 35% to 21%, eliminating certain deductions and imposing a mandatory one-time transition tax on accumulated earnings of foreign subsidiaries. The change in tax law required the Company to remeasure existing net deferred tax assets using the lower rate in the period of enactment resulting in an income tax expense of approximately $1.3 million which is fully offset by the corresponding tax benefit of $1.3 million on reduction in valuation allowance in the year ended December 31, 2017. In addition, there is no impact to current or deferred taxes related to the transition tax as the Company's foreign subsidiaries do not have cumulative positive earnings and profits. The Company has reported provisional amounts for the income tax effects of Tax Reform for which the accounting is incomplete but a reasonable estimate could be determined. There were no specific impacts of Tax Reform that could not be reasonably estimated which the Company accounted for under prior tax law. Based on a continued analysis of the estimates and further guidance on the application of the law, it is anticipated that additional revisions may occur throughout the allowable measurement period.

The Company's effective income tax rate differs from the amount computed by applying the federal statutory income tax rate to loss before income taxes as follows:

	2017	2016	2015
Income tax benefit at the federal statutory rate	(34)%	(34)%	(34)%
State income tax benefit, net of federal tax benefit	(6)%	(6)%	(6)%
Statutory rate differential attributable to foreign operations	29 %	— %	— %
Change in fair value of warrant liability	— %	7 %	8 %
Enactment of the Tax Cuts and Jobs Act	9 %	— %	— %
Derecognition due to Section 382 adjustment	192 %	— %	— %
Change in valuation allowance for deferred tax assets	(190)%	35 %	32 %
Other	— %	(2)%	— %
Total	— %	— %	— %

Deferred taxes consisted of the following:

	December 31, 2017	December 31, 2016	December 31, 2015
Net operating loss carryforwards	$ 851,633	$ 27,267,545	$ 20,091,036
Stock-based compensation	2,251,184	3,090,903	2,599,308
Less valuation allowance	(3,102,817)	(30,358,448)	(22,690,344)
Net deferred tax asset	$ —	$ —	$ —

The valuation allowance decreased by $27,255,631, for the year ended December 31, 2017, and increased by $7,668,104 and $4,197,344 during the years ended December 31, 2016 and 2015, respectively. The reductions in the 2017 loss carryforward and valuation allowance are primarily due to Section 382 ownership change, as discussed below, and the enactment of the Tax Cut and Jobs Act.

As of December 31, 2017, the Company had federal and California income tax net operating loss carryforwards of approximately $3.0 million. These net operating losses will begin to expire in taxable years 2027 through 2036 and 2017 through 2036, respectively, unless previously utilized.

Section 382 of the Internal Revenue Code can limit the amount of net operating losses which may be utilized if certain changes to a company's ownership occur. Generally, a Section 382 ownership change occurs if one or more stockholders or groups of stockholders who owns at least 5% of a corporation's stock increases its ownership by more than 50 percentage points over its lowest ownership percentage within a specified testing period. Similar rules may apply under state tax laws. Based upon management's calculations, in 2017 the Company experienced a change in ownership under Section 382 of the Internal Revenue Code and will result in the limitation of the Company's ability to utilize net operating losses. In addition, the Company may experience future ownership changes as a result of future offerings or other changes in ownership of the Company's stock. As a result, the amount of the net operation losses presented in our financial statements could be limited and may expire unutilized. The net operating losses presented above, reflect the reduction in the amounts available for carryforward based upon the Section 382 change in ownership that occurred in 2017.

During the fourth quarter of 2014, the Company licensed the non-U.S. rights to a significant portion of its intellectual property to its Bermuda-based subsidiary for approximately $11 million. The fair value of the intellectual property rights was determined by an independent third party. The proceeds from this sale represent a gain for U.S. tax purposes and were offset by current year losses and net operating loss carryforwards. However, the Internal Revenue Service, or the IRS, or the California Franchise Tax Board, or the CFTB, could challenge the valuation of the intellectual property rights and assess a greater valuation, which would require the Company to utilize a portion, or all, of its available net operating losses. If an IRS or a CFTB valuation exceeds the available net operating losses, the Company would incur additional income taxes. The Company's ability to use its net operating losses is subject to the limitations of IRS Section 382, as well as expiration of federal and state net operating loss carryforwards.

In 2016, the Company adopted ASU No. 2016-09, *Compensation-Stock Compensation (Topic 718)*, that provided certain simplifications to the accounting for stock based compensation including the presentation of excess tax benefits in the statement of cash flows. The Company has not experienced any excess tax benefits and the adoption of this standard did not have any impact on the Company's financial statements.

EXHIBIT 10.59

IMMUNOCELLULAR THERAPEUTICS, LTD.
NON-EMPLOYEE DIRECTOR COMPENSATION POLICY
AMENDED BY THE BOARD OF DIRECTORS: AUGUST 29, 2017

Each member of the Board of Directors (the "***Board***") who is not also serving as an employee of ImmunoCellular Therapeutics, Ltd. (the "***Company***") or any of its subsidiaries (each such member, an "***Eligible Director***") will receive the compensation described in this Non-Employee Director Compensation Policy (the "***Director Compensation Policy***") for his or her Board service. The Director Compensation Policy may be amended at any time in the sole discretion of the Board or the Compensation Committee of the Board.

Annual Cash Compensation

Each Eligible Director shall receive the cash compensation described below. The annual cash compensation amount set forth below is payable in equal quarterly installments, payable in arrears on the last day of each fiscal quarter in which the service occurred. If an Eligible Director joins the Board or a committee of the Board ("***Committee***") at a time other than effective as of the first day of a fiscal quarter, each annual retainer set forth below will be pro-rated based on days served in the applicable fiscal year, with the pro-rated amount paid for the first fiscal quarter in which the Eligible Director provides the service, and regular full quarterly payments thereafter. All annual cash retainer fees are vested upon payment.

1. Annual Board Service Retainer:
   a. Eligible Directors other than the Chairperson of the Board: $26,250
   b. Chairperson of the Board: $37,500

2. Annual Committee Chair Service Retainer:
   a. Chairperson of the Audit Committee: $9,000
   b. Chairperson of the Compensation Committee: $5,625
   c. Chairperson of the Nominating & Corporate Governance Committee: $5,625
   d. Chairperson of the Finance Committee: $5.625

3. Annual Committee Member Service Retainer:
   a. Member of the Audit Committee: $5,625
   b. Member of the Compensation Committee: $3,750
   c. Member of the Nominating & Corporate Governance Committee: $3,750
   d. Member of the Finance Committee: $3,750

Equity Compensation

The equity compensation set forth below will be granted under the ImmunoCellular Therapeutics, Ltd. 2016 Equity Incentive Plan (the "***Plan***"), and will be documented on the applicable form of equity award agreement most recently approved for use by the Board (or a duly authorized committee thereof) for Eligible Directors. All stock options granted under the Director Compensation Policy will be nonstatutory stock options, with an exercise price per share equal to 100% of the Fair Market Value (as defined in the Plan) of the underlying Common Stock on the date of grant, and a term of ten years from the date of grant (subject to earlier termination in connection with a termination of service as provided in the Plan).

Annual Option Grant: On the date of each annual stockholder meeting of the Company, each Eligible Director automatically, and without further action by the Board or Compensation Committee of the Board, will be granted a stock option to purchase the number of shares of the Company's Common Stock equal to $25,000 divided by the fair value (Black-Scholes value) of the Company's Common Stock on the date of grant (the "***Annual Option Grant***"). The Annual Option Grant will vest quarterly over one year from the grant date, such that the Annual Option Grant will be fully vested on the first anniversary of the date of grant, subject to the Eligible Director's Continuous Service (as defined in the Plan) on each applicable vesting date. In addition, in the event of a Change in Control or a Corporate Transaction (each as defined in the Plan), any unvested portion of the Annual Option Grant will fully vest and become exercisable as of immediately prior to the effective time of such Change in Control or Corporate Transaction, subject to the Eligible Director's Continuous Service on the effective date of such transaction.

Expenses

The Company will reimburse Eligible Directors for ordinary, necessary and reasonable out-of-pocket travel expenses to cover in-person attendance at and participation in Board and/or Committee meetings; *provided*, that Eligible Directors timely submit to the Company appropriate documentation substantiating such expenses in accordance with the Company's travel and expense policy, as in effect from time to time.

Exhibit 23.1

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM'S CONSENT

We consent to the incorporation by reference in the Registration Statements of ImmunoCellular Therapeutics, Ltd. on Form S-3 (File No. 333-208788) and Forms S-8 (File Nos. 333-214608, 333-192177, 333-183715, 333-171652, 333-155199, 333-151968 and 333-147278) of our report, which includes an explanatory paragraph as to the Company's ability to continue as a going concern, dated March 14, 2018, with respect to our audits of the consolidated financial statements of ImmunoCellular Therapeutics, Ltd. as of December 31, 2017 and 2016 and for the years ended December 31, 2017, 2016 and 2015, which report is included in this Annual Report on Form 10-K of ImmunoCellular Therapeutics, Ltd. for the year ended December 31, 2017.

/s/ Marcum LLP
Marcum LLP
Irvine, CA
March 14, 2018

Exhibit 31.1

Certification of the Principal Executive Officer Under Section 302 of the Sarbanes-Oxley Act

I, Anthony Gringeri, Ph.D., certify that:

1. I have reviewed this report on Form 10-K of ImmunoCellular Therapeutics, Ltd.;

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 assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(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 14, 2018

By: /s/ Anthony Gringeri

Name: Anthony Gringeri, Ph.D.

Title: President and Chief Executive Officer

Exhibit 31.2

Certification of the Principal Financial Officer Under Section 302 of the Sarbanes-Oxley Act

I, David Fractor, certify that:

1. I have reviewed this report on Form 10-K of ImmunoCellular Therapeutics, Ltd.;

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 assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(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 14, 2018

By: /s/ David Fractor

Name: David Fractor

Title: Chief Financial Officer

Exhibit 32.1

CERTIFICATION OF THE PRINCIPAL EXECUTIVE OFFICER

Pursuant to the requirement set forth in Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and Section 1350 of Chapter 63 of Title 18 of the United States Code (18 U.S.C. § 1350), the undersigned officer of ImmunoCellular Therapeutics, Ltd. (the "Company") hereby certifies that, to the best of his knowledge:

1. The Company's Annual Report on Form 10-K for the period ended December 31, 2017 (the "Annual Report"), to which this Certification is attached as Exhibit 32.1, fully complies with the requirements of Section 13(a) or Section 15(d) of the Exchange Act; and

2. The information contained in the Annual Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 14, 2018

By: /s/ Anthony Gringeri

Name: Anthony Gringeri, Ph.D.

Title: President and Chief Executive Officer

"This certification accompanies the Form 10-K to which it relates, is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of ImmunoCellular Therapeutics, Ltd. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of the Form 10-K), irrespective of any general incorporation language contained in such filing."

Exhibit 32.2

CERTIFICATION OF THE PRINCIPAL FINANCIAL OFFICER

Pursuant to the requirement set forth in Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and Section 1350 of Chapter 63 of Title 18 of the United States Code (18 U.S.C. § 1350), the undersigned officer of ImmunoCellular Therapeutics, Ltd. (the "Company") hereby certifies that, to the best of his knowledge:

1. The Company's Annual Report on Form 10-K for the period ended December 31, 2017 (the "Annual Report"), to which this Certification is attached as Exhibit 32.1, fully complies with the requirements of Section 13(a) or Section 15(d) of the Exchange Act; and

2. The information contained in the Annual Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 14, 2018

By: /s/ David Fractor

Name: David Fractor
Title: Chief Financial Officer

"This certification accompanies the Form 10-K to which it relates, is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of ImmunoCellular Therapeutics, Ltd. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of the Form 10-K), irrespective of any general incorporation language contained in such filing."