IMMUNOCELLULAR THERAPEUTICS, LTD.

FORM 10-K
(Annual Report)

Filed 03/30/16 for the Period Ending 12/31/15

Address	23622 CALABASAS ROAD
	SUITE 300
	CALABASAS, CA 91302
Telephone	818-264-2300
CIK	0000822411
Symbol	IMUC
SIC Code	2834 - Pharmaceutical Preparations
Industry	Biotechnology & Drugs
Sector	Healthcare
Fiscal Year	12/31

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, 2015
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)**
23622 Calabasas Road, Suite 300 Calabasas, California	**91302**
(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 MKT**

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, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer," and "smaller reporting company" in Rule 12b-2 of the Exchange Act (Check one):

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

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

The aggregate market value of the common stock held by non-affiliates of the registrant as of June 30, 2015 was approximately $42,419,767.

There were 91,727,797 shares of the registrant's common stock outstanding on **March 23, 2016** .

Documents incorporated by reference:

Portions of the registrant's Proxy Statement for the 2016 Annual Meeting of Stockholders are incorporated herein by reference in Part III of this Annual Report on Form 10-K to the extent stated herein. The proxy statement will be filed with the Securities and Exchange Commission within 120 days of the registrant's fiscal year ended December 31, 2015 .

Table of Contents
Form 10-K

"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, 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 are molecular signals that the immune system uses to identify foreign bodies. While some other cancer immunotherapies only target a single cancer antigen, our technology can elicit an immune response against several antigens. Our cancer immunotherapies are also distinguished by the fact that they target cancer stem cells (CSCs), which are the primary drivers of tumor growth and disease recurrence. Our most advanced product candidate, ICT-107, recently began phase 3 testing in which we anticipate randomizing 414 patients in about 120 clinical sites in the U.S., Canada and Europe. In addition, we have a portfolio of other potential therapeutic immunotherapies using our proprietary approach to treating cancer.

ICT-107, our lead product candidate, is a dendritic cell (DC) vaccine for the treatment of newly diagnosed glioblastoma multiforme (GBM), the most common and lethal type of brain cancer. ICT-107 is designed to activate a patient's immune system to target six different tumor-associated antigens. ICT-107 has completed phase 2 testing with results reported in December 2013. Additional updated results were reported in June 2014 and November 2014. In November 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, the trial enrolled 278 patients at 25 centers throughout the U.S. and 124 patients were randomized to ICT-107 or placebo. As reported in November 2015, ICT-107 treated patients had a numerical advantage in OS of 1.6 months more than placebo patients in the intent-to-treat (ITT) population but the difference in survival between ICT-107 and placebo treated patients (the primary efficacy endpoint of the trial), did not reach statistical significance (p-value = 0.44; Hazard Ratio = 0.85). For Progression-Free Survival (PFS), an important secondary efficacy endpoint, the most updated results were reported in November 2014 when ICT-107 treated patients had a 1.3 month advantage in median PFS compared with placebo patients in the ITT population. This difference in PFS between ICT-107 and placebo treated patients reached statistical significance (p-value = 0.03; Hazard Ratio = 0.64). ICT-107 was generally well tolerated, with no imbalance in adverse events between the treated and placebo groups.

The ICT-107 treatment effect appears to be strongest in the pre-defined subgroup of HLA-A2 patients. We analyzed HLA-A2 patients according to their methylation (MGMT) gene status (unmethylated or methylated) which is a known predictor of responsiveness to standard of care chemotherapy. While the subgroups we analyzed were small in size, and not powered to show statistical significance, the numeric advantages in favor of the ICT-107 treated patients were shown to be large and clinically meaningful. Median OS for the HLA-A2 methylated MGMT per protocol (PP) population was 37.7 months for the ICT-107 patients and 23.9 months for the control group, representing a 13.8 month median OS numeric benefit for the ICT-107 treated group while not achieving statistical significance (p-value = 0.65; Hazard ratio = 0.80). Median OS for the HLA-A2 unmethylated MGMT PP population was 15.8 months for ICT-107 patients and 11.8 months for the control group, representing a 4 month median OS numeric benefit for the ICT-107 treated group while not achieving statistical significance (p-value = 0.33; Hazard Ratio = 0.70).

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. The phase 3 design was submitted to the U.S. FDA and received Special Protocol Assessment (SPA) in August 2015. Patient screening began in November 2015 in the U.S. We anticipate that it will take 25 months from initial enrollment to randomize a target of 414 patients and that the trial overall will require 4-5 years from initial enrollment to complete and report results. There are currently two interim analyses to be conducted by the Independent Data Monitoring Committee (DMC). The first is a futility assessment that will occur when 33% of the required trial events have occurred. We estimate that the triggering condition for this assessment will occur roughly 2 years into the trial. The second is an efficacy assessment that will occur when 60% of the required trial events have occurred. We estimate that the triggering condition for this assessment will occur roughly 2.5 years into the trial. The trial is being conducted in the U.S., Canada, and Europe and we are working with the major cancer cooperative groups in each region to ensure sufficient and timely access to qualifying patients.

In addition to ICT-107, we are also developing two other therapeutic DC vaccines: ICT-140 for ovarian cancer and ICT-121 for recurrent GBM. ICT-140 targets seven tumor-associated antigens expressed on ovarian cancer cells. Some of the antigens utilized in ICT-140 were 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 vaccine manufacturing process to bring it to a phase 3 and commercial ready state. We plan to use this improved process to manufacture clinical supplies for the ICT-140 trial. We are holding the initiation of this trial until we can find a partner to share expenses or until we have secured sufficient financial resources to complete the ICT-107 phase 3 program. 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 would occur faster if additional sites were added to the study. In 2015 we added five sites and made modifications in the screening criteria to facilitate enrollment. We anticipate the trial will be fully enrolled by the end of 2016.

In September 2014, we entered into a licensing agreement with the California Institute of Technology (Caltech) for exclusive rights to novel technology for the development of stem cell immunotherapies for the treatment of cancer. 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 dendritic cell-based cancer vaccine 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 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 stem cells rather than into T cells, the immune response can be transformed into a durable and more potent response that could effectively treat previously resilient solid cancers. This observation has been verified in animal models by investigators at Caltech and the National Cancer Institute.

The first step in the research program for this Stem-to-T-Cell technology is to identify the genetic sequence of a 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.

Autologous cell-based therapies must be manufactured separately for each patient. As a consequence, the manufacturing costs are typically higher when compared to other types of therapies that are not patient specific. We have developed our DC vaccine manufacturing process so that we can make multiple doses of a patient's vaccine from a single manufacturing run utilizing one apheresis from the patient. In addition, the vaccine is stored in liquid nitrogen making the logistics of shipping and administration to the patient easier than that for other cell therapies that must be shipped fresh and administered to the patient within hours of manufacture.

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. We have financed the majority of our prior operations through the sales of securities and believe that we may access grants and awards to supplement future sales of securities. 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 provides for a $4,000,000 project initial payment, which was received during the fourth quarter of 2015, and up to $15,919,449 in future milestone payments that are primarily dependent on patient enrollment in the ICT-107 Phase 3 trial. Under the terms of the CIRM award, the Company is obligated to share future ICT-107 related revenue with CIRM. The percentage of revenue sharing is dependent on the amount of the award received by the Company and whether the revenue is from product sales or license fees. The maximum revenue sharing amount the Company may be required to pay to CIRM is equal to nine (9) times the total amount awarded and received by the Company. The Company has the option to decline any and all amounts awarded by CIRM. As an alternative to revenue sharing, the Company has 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 will be 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 (0.61% as of December 31, 2015) plus 25% per annum.

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.

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 23622 Calabasas Road, Suite 300, Calabasas, California 91302, and our telephone number at that address is (818) 264-2300.

Technology and Potential Products

The table below summarizes the status of our ICT-107, ICT-121 and ICT-140 product candidates and other technologies:

PRODUCT CANDIDATE	TARGET INDICATION	STATUS
Active Immunotherapies		
ICT-107 (DC-based vaccine targeting CSCs and cancer antigens)	Newly diagnosed GBM	Phase 3 enrolling patients
ICT-140 (DC-based vaccine targeting CSCs and cancer antigens)	Ovarian cancer	Phase 2 pending
ICT-121 (DC-based vaccine targeting CD133+ CSCs)	Recurrent GBM and other solid tumor cancers	Phase 1 enrolling patients
Stem cell therapies for cancer	To be determined	Pre-clinical

Cancer is caused by abnormal cells that grow in an uncontrolled manner. These cells proliferate and can metastasize throughout the body causing tumors that can result in organ failure and death. Unfortunately, conventional cancer treatments, such as surgery, radiation, and chemotherapy, have limited therapeutic benefit and significant undesirable side effects. Our approach is to develop cancer therapies that activate the body's immune system response to fight cancer. FDA-approved cancer immunotherapies, such as sipuleucel-T and ipilimumab, have been shown to improve patient survival where conventional therapies failed.

We believe our approach of targeting multiple tumor-associated antigens, as well as CSC antigens, will enable us to develop clinically effective treatments. Cancer is a complex disease often characterized by several cellular abnormalities. We believe that targeting multiple cancer antigens not only increases the likelihood of an effective treatment, but can also prevent tumor escape mechanisms that are sometimes observed with single-antigen targeted therapies.

Solid tumors commonly consist of different types of cancer cells. CSCs are a subset of cancerous cells representing a small number of all cells in a tumor. They are believed to be responsible for growth and recurrence of primary and metastatic tumors. Like normal stem cells, CSCs have the ability to self-renew and make differentiated daughter cells. But, unlike normal stem cells, CSCs no longer have the ability to regulate their own growth. Scientists have shown that CSCs are resistant to radiation and chemotherapy. Thus, conventional therapies can eliminate most of the bulk tumor, but since the CSCs are not destroyed, the tumor can regrow after treatment. Complete eradication of the entire tumor mass requires elimination of the CSCs.

Active Immunotherapy

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 vaccines is to (i) make use of and enhance the DC's 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 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.

Sipuleucel-T was the first cell-based cancer immunotherapy to be approved by the FDA. The prostate cancer vaccine utilizes the patient's antigen presenting cells (APCs) to target a single tumor antigen known as prostatic acid phosphatase. A randomized phase 3 trial showed that sipuleucel-T was safe and extended the median overall survival of metastatic castrate-resistant prostate cancer patients by four months.

We believe that manufacturing and logistical costs associated with sipuleucel-T have limited the drug's commercial viability. Manufacturing is relatively inefficient as only about 25% of the final product actually consists of APCs. The APCs cannot be stored and must be administered within 18 hours. Also, patients must undergo three apheresis procedures every two weeks to harvest enough cells to manufacture three doses of sipuleucel-T.

In contrast, our DC technology avoids many of sipuleucel-T's shortcomings. As much as 90% of our final manufacturing product is DCs, which, we believe, can stimulate a much stronger immune response than APCs. Our manufacturing process is typically able to produce about 20 doses from a single apheresis procedure. The DCs can be frozen and stored for long periods. Our phase 2 ICT-107 vaccines have already demonstrated stability beyond two years. Freezing the vaccine eliminates the need to ship the product back to patients within 18 hours. Also, DCs can be administered more conveniently by intradermal injection versus intravenous infusion for sipuleucel-T.

Product Candidates

ICT-107

The American Cancer Society (ACS) estimates that about 23,770 malignant tumors of the brain and spinal cord were diagnosed in the U.S. in 2015. 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 vaccine 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 CSCs. The therapeutic vaccine 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. Of the 16 newly diagnosed patients treated with ICT-107, seven continue to survive beyond six years. Six of the 16 patients were disease free over five years. One of these six patients later died from leukemia without recurrence of GBM, one progressed at 62 months, and four patients are still free of disease. The median PFS in the 16 newly diagnosed patients enrolled in the trial was 16.9 months, and median OS was 38.4 months—the latter representing a 20 month advantage as compared to historical standard of care in similar patients.

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

In September 2010, we entered into a Master Services Agreement (MSA) with Aptiv Solutions (formerly Averion International Corp.), a clinical research organization. Under the MSA, Aptiv Solutions provides us with clinical trial support

services in connection with and over the course of our phase 2 clinical trial for ICT-107, including overseeing enrollment of patients and execution. The MSA, which may be terminated by us at any time, provides for a limit of approximately $5.0 million on the fees that we will be obligated to pay if all of the planned services are actually provided.

In January 2011, we entered into a vaccine production agreement with the University of Pennsylvania, who assisted us in the Good Manufacturing Practice (GMP) production of ICT-107 for the phase 2 trial. In October 2011, we entered into an agreement with Progenitor Cell Therapy, LLC to serve as a second manufacturer of ICT-107 for the phase 2 trial.

In February 2014, ICT-107 for the treatment of glioma, which includes glioblastoma multiforme, was granted Orphan Drug status by the EMA, providing us with eligibility to incentives, under certain circumstances, including a ten-year period of market exclusivity, access to a centralized review process, trial design assistance and scientific advice during product development, fee reductions, and tax incentives.

In March 2015, we entered into a vaccine production agreement with PharmaCell B.V. to serve as the European manufacturer of ICT-107 for the phase 3 trial.

In June 2015, we entered into a vaccine production agreement with PCT, LLC, a Caladrius Company, a subsidiary of Caladrius Biosciences, Inc. to serve as the North American manufacturer of ICT-107 for the phase 3 trial.

In June 2015, we entered into a MSA with Novella Clinical LLC, a clinical research organization. Under the MSA, Novella provides us with clinical trial support services in connection with and over the course of our phase 3 clinical trial for ICT-107, including overseeing enrollment of patients and execution. The MSA, which may be terminated by us at any time, provides for a limit of approximately $40.0 million on the fees that we will be obligated to pay if all of the planned services are actually provided.

In August 2015, the ICT-107 phase 3 trial design, that was submitted earlier to the U.S. FDA, received Special Protocol Assessment (SPA).

ICT-140

The ACS estimates that in the U.S. about 22,280 women will receive a new diagnosis of ovarian cancer and about 14,240 will die from ovarian cancer in 2016. The National Cancer Institute reports that ovarian cancer is the ninth leading cause of cancer death in the United States 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 vaccine 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 vaccine 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. We are holding the initiation of this trial until we have secured a partner and/or sufficient financial resources to complete the ICT-107 phase 3 program.

ICT-121

The Company 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 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 would occur faster if additional sites were added to the study. In 2015 we added five sites and made modifications in the screening criteria to facilitate enrollment. We anticipate the trial will be fully enrolled by the end of 2016.

Intellectual Property Agreements

Cedars-Sinai Agreements

In November 2006, we entered into a license agreement with Cedars-Sinai (the Original License Agreement). As an upfront licensing fee, we issued Cedars-Sinai 694,000 shares of common stock and paid Cedars-Sinai $62,000 . Subsequently, we issued Cedars-Sinai an additional 100,000 shares of our common stock as an additional license fee.

On May 13, 2015, we 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, 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 dendritic cell-based vaccines 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 will be 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. If both of these milestones are met, the required milestone payments will total $1.1 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, 2015, Cedars-Sinai is not performing any research activities on behalf of the Company.

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 vaccines for cancer treatment and prevention, except bacteria-based, viral vector-based and nucleic acid-based vaccines. 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 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 vaccines.

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 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.

Intellectual Property

As discussed further below, as of December 31, 2015 , we had rights to or owned a portfolio of issued patents and pending patent applications that include claims that cover, or would cover if issued, antigen compositions of our dendritic cell vaccines, methods of use associated therewith, other related technologies, and stem cell technology.

In 2006, we licensed cancer vaccine technology from the Cedars-Sinai Medical Center. To date, three U.S. patents have issued, possessing expiration dates ranging from about 2024 to 2031, covering our ICT-107 product candidate, and related patent protection is pending in the U.S. and Canada. Three U.S. patents have also issued covering our cancer vaccine product candidate ICT-121, and these patents possess expiration dates of about 2028 to 2030; corresponding patent protection is pending or has issued in several foreign jurisdictions. For our ICT-140 product candidate, patent applications are pending in the U.S. and several foreign jurisdictions; any patents to issue from these applications will have an expiration date of about 2034. One or more of the U.S. patents and foreign applications, should they issue, may be entitled to an increased term due to, for example, patent term extension or additional proprietary protection through a supplementary protection certificate.

There can be no assurance that any further patents will issue in the U.S. or in any foreign jurisdiction relating to our ICT-107, ICT-121, or ICT-140 product candidates, or that any patent that has issued, or does issue in the future, will not be challenged, invalidated or circumvented by others.

In addition to the proprietary rights drawn to dendritic cell-based vaccine product candidates that we have secured from Cedars-Sinai, we have licensed rights to issued patents and pending patent applications relating to various antigens used in the vaccine products. There can be no assurance that any further patents will issue in the U.S. or in any foreign jurisdiction relating to these antigens, or that any patent that has issued, or does issue in the future, will not be challenged, invalidated or circumvented by others.

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.

Employees

As of March 23, 2016 , we have six full-time employees and four part-time employees. In addition, we have a number of consulting agreements for 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 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.

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 dendritic cell-based vaccines 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 file 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 be in compliance 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 Related To Our Business

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. 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.

Our cell-based vaccine technologies are our primary platform technologies, and our commercial prospects will be heavily dependent on the outcome of regulatory requirements and any future clinical trials for our lead vaccine product candidate, ICT-107. We have only six full-time employees and four part-time 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:

- obtain additional financial resources and meet milestones under award funding necessary to develop, test, manufacture and market our vaccine product candidates, in particular ICT-107;
- engage corporate partners to assist in developing, 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. 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. In particular, the results generated in our phase 2 trial of ICT-107 may not be indicative of the results that we might obtain in further phase 3 testing of ICT-107.

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. In particular, with respect to ICT-107, we receive award funding based on reimbursement of amounts expended depending upon patient initiation in our ongoing phase 3 clinical trial and any delays in enrollment would negatively impact our cash flow and ability to finance our operations.

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 timely enrollment in clinical trials;
- patient referral practices of physicians;
- 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 as planned, we may need to delay or terminate ongoing or planned clinical trials, either of which would have a negative effect on our business. For example, we currently project that our ICT-107 phase 3 study will accrue and enroll patients based on our historical experience in order to achieve our stated goal of completing enrollment by the end of 2017 and having our interim results at that time and 6 months thereafter. There can be no assurance that we will timely achieve these goals, that we will have sufficient funding to obtain these results or that the results will be favorable.

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 (now Valeant Pharmaceuticals) 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.

ICT-121 has only enrolled a limited number of patients 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 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, 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, Celldex Therapeutics, Inc. is conducting a phase 3 clinical trial for its EGFRvIII-targeted cancer vaccine, rindopepimut. Northwest Biotherapeutics is also 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).

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.

Our 2006 Equity Incentive Plan, as amended, expired in January 2016 and the failure to obtain necessary stockholder approval of a new equity plan could adversely affect the recruitment and retention of management and key personnel.

In order to attract and retain personnel in a competitive marketplace, we believe that we must provide a competitive compensation package that includes equity-based compensation. Our sole equity incentive plan, the 2006 Equity Incentive Plan, as amended, expired in January 2016. In March 2016, our Board of Directors adopted a 2016 Equity Incentive Plan, subject to approval by our stockholders at our 2016 Annual Meeting.

Our performance depends on attracting, motivating and retaining executive talent and other key personnel. Competition for qualified personnel in our industry is significant. There can be no assurance that our stockholders will approve our new equity plan proposal, and our recruitment and retention efforts may be adversely affected by our inability to compete for qualified candidates in a highly competitive market, and we may experience difficulty in implementing our business strategy.

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, our Senior Vice President – Strategic Resources 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 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, 2015 , we had an accumulated deficit of $74.1 million . 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.

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 such as ICT-107 may not be feasible due to our inability to raise sufficient capital. For example, we estimate that the external cost of completing our ICT-107 phase 3 clinical trial will be approximately $40 to $50 million. Our existing resources will not be sufficient for us to complete the phase 3 trial and our current grant funding from CIRM will only result in $20 million of funding if we can timely and successfully achieve the enrollment milestones for reimbursement under the award. As a result, we expect that we will need to raise significant additional capital to achieve the interim results and to complete the trial if the interim results are positive. It is possible that we will not achieve the progress that we expect with respect to ICT-107 because the actual costs and timing of conducting a large phase 3 clinical trial are difficult to predict and are subject to substantial risks and delays. 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 March 23, 2016 , we had approximately $14.75 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 the California Institute of Regenerative Medicine,

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 2015 audited 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 financial statements for the year ended December 31, 2015 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 included in Item 8 of this Annual Report a 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, including our Cedars-Sinai license for ICT-107, 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, including the Cedars-Sinai license for ICT-107. Delay or failure by these third parties could adversely affect the continuation of our license agreements with their party licensors.

Risks Relating to SEC Investigation

The proposed agreement in principle with the SEC may not become final in its proposed form and could be materially more adverse to us than currently anticipated .

We have agreed in principle with the staff of the SEC on a proposed settlement framework related to an investigation principally of our 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. We would consent to the entry of an administrative order requiring that we cease and desist from any future violations of Sections 5, 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, subject to approval by the Commissioners of the SEC, without admitting or denying any allegations. 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 execution of a formal offer of settlement and approval by the Commissioners of the SEC, neither of which can be assured. Based upon the settlement framework with the staff of the SEC, we have not accrued and does not currently expect to accrue a liability related to this matter. However, any final settlement must be approved by the Commission. If the Commission does 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.

If we are not able to execute a formal offer of settlement with the staff of the SEC, of if the settlement is not approved by the Commissioners of the SEC, we may need to enter into further discussions with the SEC to resolve the investigated matters on different terms and conditions. Any different terms and conditions relative to the offer of settlement with the SEC could include any of a broad range of civil sanctions against us and individuals. These include, but are not limited to, injunctive relief, disgorgement, fines, interest and additional modifications to business practices. Any such disgorgement, fines, penalties, interest and other associated costs could be detrimental to our business. Further, if we are not able to execute a formal offer of settlement, or if the settlement is not approved by the Commissioners of the SEC, the matter may require significant management and financial resources, which could otherwise be devoted to the operation of our business.

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. For example, all of the key oversight responsibilities for the development and manufacture of ICT-107, our lead product candidate, are conducted by our management team but all activities are the responsibility of third party vendors.

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. 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, 2015 and March 23, 2016 , the stock price for our common stock has ranged from $0.20 to $0.82 . 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 March 23, 2016 , we had approximately $14.75 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.

If we fail to adhere to the strict listing requirements of the NYSE MKT, we may be subject to delisting. As a result, our stock price may decline and our common stock may be delisted. If our stock were no longer listed on the NYSE MKT, the liquidity of our securities likely would be impaired.

Our common stock currently trades on the NYSE MKT under the symbol IMUC. If we fail to adhere to the NYSE MKT's strict listing criteria, our stock may be delisted. This 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 MKT.

Our founder and member of our Board of Directors may be able to prevent other stockholders from influencing significant corporate decisions.

As of March 23, 2016 , Dr. John Yu beneficially owned approximately 6.57% of our outstanding common stock. Dr. Yu, our founder and a member of our Board of Directors, is entitled to serve as a director and to designate two of our other directors. Dr. Yu, through his right to name himself plus two of our directors, may be able to direct the outcome of matters presented to our board of directors and our stockholders, including the election of our directors and other corporate actions such as:

- our merger with or into another company;
- sale of substantially all of our assets; and
- amendments to our certificate of incorporation.

We also may choose in the future to enter into agreements with one or more investors in which we would agree to change the size or composition of our board of directors.

The decisions of these stockholders or any investor–designated directors may conflict with our interests or those of our other stockholders.

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 March 23, 2016 , we had 91,727,797 shares of common stock outstanding and another 36,916,753 shares of common stock issuable upon exercise of options or warrants, 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.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

We currently maintain our corporate office in Calabasas, California under an operating lease through August 31, 2016 at a monthly rental rate of $8,554. We do not lease or own any other real property.

Item 3. Legal Proceedings.

We are not a party to any material legal proceedings. 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.

We have agreed in principle with the staff of the SEC on a proposed settlement framework related to an investigation principally of our 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. We would consent to the entry of an administrative order requiring that we cease and desist from any future violations of Sections 5, 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, subject to approval by the Commissioners of the SEC, without admitting or denying any allegations. 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 execution of a formal offer of settlement and approval by the Commissioners of the SEC, neither of which can be assured. Based upon the settlement framework with the staff of the SEC, we have not accrued and does not currently expect to accrue a liability related to this matter. However, any final settlement must be approved by the Commission. If the Commission does 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.

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 MKT 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, 2014	$ 1.58	$ 0.88
June 30, 2014	$ 1.45	$ 1.05
September 30, 2014	$ 1.16	$ 0.87
December 31, 2014	$ 1.03	$ 0.53
March 31, 2015	$ 0.82	$ 0.48
June 30, 2015	$ 0.55	$ 0.43
September 30, 2015	$ 0.59	$ 0.37
December 31, 2015	$ 0.53	$ 0.34

Stockholders

As of March 23, 2016 , there were approximately 95 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. and its subsidiaries (the Company) is a biotech company that is seeking to develop and commercialize new therapeutics to fight cancer using the immune system.

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 activities for its immunotherapy product candidates, and has not generated any recurring revenues. The Company's lead product candidate, ICT-107, recently began phase 3 testing in which we anticipate randomizing 414 patients in about 120 clinical sites in the U.S., Canada and Europe. The Company has two other product candidates, ICT-140 and ICT-121, both with investigational new drug (IND) applications active at the US Food and Drug Administration (FDA). The Company is holding the initiation of its ICT-140 trial until it can find a partner to share expenses or until it has secured sufficient financial resources to complete the ICT-107 Phase 3 program. Additionally, the Company has acquired the rights to technology for the development of certain stem cell immunotherapies for the treatment of cancer. The Company has incurred operating losses and, as of December 31, 2015 , the Company had an accumulated deficit of $74,137,740 . The Company expects to incur significant research, development and administrative expenses before any of its products can be launched and recurring revenues generated.

During 2015, the Company received an award of $19.9 million from the California Institute of Regenerative Medicine (CIRM) to partially fund the Company's phase 3 trial of ICT-107. The Company received $4 million from CIRM during 2015. See "Liquidity and Capital Resources" for a full discussion.

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, 2015 , 2014 and 2013 , we recorded an expense of $ 10,896,591 , $ 5,969,182 and

$ 5,339,716 , respectively, related to research and development activities. We expect our research and development expenses in 2016 will increase compared to 2015 as we prepare for and commence the Phase 3 trial of ICT-107, increase patient enrollment for ICT-121 and expand our stem-to-t-cell program.

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, 2015 , 2014 , 2013 and 2012 remain open for possible review.

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. The fair value of warrant liability is estimated using the Binomial Lattice option valuation model. The valuation of the Company's warrant liability is primarily dependent upon the volatility of the Company's stock and the remaining term of the underlying warrants.

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. Under the terms of the award, the Company is required to share future ICT-107 related revenue with CIRM. The percentage of revenue sharing is dependent on the amount of the award received by the Company and whether the revenue is from product sales or license fees. As an alternative to revenue sharing, the Company has the option to convert the award to a loan. In the event the Company exercises its right to convert the award to a loan, it will be obligated to repay the loan including interest at the rate of the three-month LIBOR rate (0.61% as of December 31, 2015) plus 25% per annum. Since the Company may be required to repay some or all of the amounts awarded by CIRM, the Company has accounted for this award as a liability rather than revenue. Additionally, the Company has accrued interest on the loan at the aforementioned rate.

Results of Operations

For the Years Ended December 31, 2015 and 2014

Net Loss

We incurred a net loss of $12,790,814 during the year ended December 31, 2015 compared to a net loss of $9,377,533 in the year ended December 31, 2014 . The increase in the net loss in 2015 is primarily due to an increase in research and development expenses, general and administrative expenses and stock based compensation, partially offset by a 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, 2015 or 2014 and we do not expect to have any revenue in 2016 .

Expenses

Research and development expenses during the year ended December 31, 2015 were $10,896,591 compared to $5,969,182 for the year ended December 31, 2014 . During 2015 we incurred expenses related to the start-up and planning of our ICT-107 Phase 3 trial. Additionally, we incurred expenses related to our stem cell immunotherapies for the treatment of cancer. We expect these expenses to increase in future periods as we progress in the ICT-107 Phase 3 trial and as we develop our stem cell immunotherapies. As of December 31, 2014, our ICT-140 trial for ovarian cancer was placed on hold. As a result, we incurred minimal expense related to this program during 2015 and we expect future expenses to continue to decline until such time as we obtain additional financing or find a partner for this program.

Our general and administrative expenses for the years ended December 31, 2015 and 2014 were $4,616,500 and $3,889,359 respectively. The increase reflects additional professional fees incurred to support various contract negotiations, patent protection costs and governmental compliance.

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. During the year ended December 31, 2014 , we incurred $764,599 in non-cash expenses, consisting of $654,260 of stock based compensation, $62,683 of financing expense associated with warrant repricing and $47,656 of depreciation expense. These expenses were partially offset as the Company recognized a credit of $529,774 related to the revaluation of our warrant derivatives. The value of our warrant derivative is highly influenced by the price of our Company's common stock. As of December 31, 2015 , the price of our common stock decreased to $0.36 per share compared to $0.73 per share at December 31, 2014 and $0.93 per share at December 31, 2013 .

For the Years Ended December 31, 2014 and 2013

Net Loss

We incurred a net loss of $9,377,533 during the year ended December 31, 2014 compared to a net loss of $8,800,563 in the year ended December 31, 2013. The increase in the net loss in 2014 is primarily due to additional research and development expenses incurred related to our ICT-121 and ICT-140 programs.

Revenues

We did not have any revenue in the years ended December 31, 2014 or 2013 and we do not expect to have any revenue in 2015.

Expenses

Research and development expenses during the year ended December 31, 2014 were $5,969,182 compared to $5,339,716 for the year ended December 31, 2013. During 2014 we increased our spending related to ICT-121 and ICT-140. The increased spending in these programs was partially offset by decreased spending in our ICT-107 program. During the third quarter of 2012, we completed our patient enrollment in our Phase 2 trial of ICT-107 and our expenses related to this trial have been decreasing. We are holding the initiation of our ICT-140 trial until we can find a partner to share expenses or until we have secured sufficient financial resources to commence the ICT-107 phase 3 program.

Our general and administrative expenses for the years ended December 31, 2014 and 2013 were $3,889,359 and $4,120,603 respectively. The decrease in expenses reflects lower costs in the areas of investor relations and the absence of a litigation matter that occurred during the quarter ended September 30, 2013. These decreases were partially offset by increases in directors and officers insurance and occupancy costs.

During the year ended December 31, 2014, we incurred $764,599 in non-cash expenses, consisting of $654,260 of stock based compensation, $62,683 of financing expense associated with warrant repricing and $47,656 of depreciation expense. These expenses were partially offset as the Company recognized a credit of $529,774 related to the revaluation of our warrant derivatives. During the year ended December 31, 2013, we incurred $778,431 in non-cash expenses, consisting of $724,212 of stock based compensation, $3,817 loss on disposal of assets and $50,402 of depreciation. These expenses were partially offset as the Company recognized a credit of $642,411 related to the revaluation of our warrant derivatives. The value of our warrant derivative is highly influenced by the price of our Company's common stock. As of December 31, 2014, the

price of our common stock decreased to $0.73 per share compared to $0.93 per share at December 31, 2013 and $1.92 per share at December 31, 2012.

Liquidity and Capital Resources

As of December 31, 2015 , we had working capital of $22,291,140 , compared to working capital of $23,152,970 as of December 31, 2014 . 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 expect our costs will increase in 2016 primarily to fund the phase 3 trial of ICT-107, and that we will 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 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. These factors raise substantial doubt about our ability to continue as a going concern.

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 November 2015 and $15.9 million in future milestone payments that are primarily dependent on patient enrollment. Our next award will be $3 million when the Phase 3 trial of ICT-107 is 25% enrolled. We are obligated to share future ICT-107 related revenue with CIRM. The percentage of revenue sharing is dependent on the amount of the award received by us and whether the revenue is from product sales or license fees. The maximum revenue sharing amount we may be required to pay to CIRM is equal to nine times the total amount awarded and received by us. We have the option to decline any and all amounts awarded by CIRM. As an alternative to revenue sharing, we have the option to convert the award to a loan. We may exercise this loan conversion option until ten business days after the FDA notifies us that it has accepted our application for marketing authorization. In the event we exercise our right to convert the award to a loan, we will be obligated to repay the loan within ten business days of making the election including interest at the rate of the three-month LIBOR rate (0.61% as of December 31, 2015) plus 25% per annum. Since we may be required to repay some or all of the amounts awarded by CIRM, we are accounting for this award as a liability rather than revenue and accruing interest at the aforementioned rate.

On February 12, 2015, we entered into an underwriting agreement with Roth Capital Partners, LLC, pursuant to which we sold 26,650,000 shares of our common stock and warrants to purchase 18,655,000 shares of our common stock at a combined public offering price of $0.60 per share and related warrant. The resulting aggregate net proceeds from the offering was approximately $14.5 million, after deducting underwriting discounts and other offering expenses payable by us of approximately $1.5 million. The warrants have an exercise price of $0.66 per share and a term of 60 months from the date of issuance. The warrants provide for a weighted-average adjustment to the exercise price if we issue or are deemed to issue additional shares of our common stock at a price per share less than the then effective exercise price of the warrants, subject to certain exceptions. Accordingly, these warrants have been accounted for as derivative liabilities and approximately $4.2 million of the net proceeds was allocated to the warrant derivative and the remaining $10.3 million was allocated to equity.

On April 18, 2013, we entered into a Controlled Equity Offering [SM] 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 MKT, 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 MKT approved the listing of 10,593,220 shares of our common stock in connection with the Sales Agreement. Through December 31, 2015, we sold 6,946,261 shares of our common stock under the Sales Agreement that resulted in net proceeds to the Company of approximately $9,402,383. See additional discussion in Note 6 to the audited consolidated financial statements which are included in this Form 10-K.

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. As of the expiration date we had $7,081,494 remaining under the registration statement. Subsequent to December 31, 2015, 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 $75,000,000. 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 Notes 6 and 10 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, 2015 , we had no long-term debt obligations, no capital lease obligations, or other similar long-term liabilities, other than the CIRM award liability. We have various purchase commitments for sponsored research, which are generally cancelable upon 30 to 120 day notice, and license fees. 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.

We purchased in advance of the trial a significant portion of the supplies that will be used as part of the Phase 3 trial of ICT-107 as we determined that it was more economical to purchase these supplies in bulk from the manufacturer. Accordingly, these supplies have been capitalized on the balance sheet with those supplies that are expected to be used during the next twelve months included in current assets and the remainder as non-current assets. Peptides and LPS make up the majority of the supplies that have been purchased in advance of the trial. These supplies will be expensed over the course of the trial as patients are enrolled and product is used.

Certain of the Phase 3 ICT-107 vendors required deposits at the outset of the trial. Most vendors will use these deposits to offset invoices at the conclusion of the trial. Accordingly, these deposits are classified as non-current assets on the balance sheet. These deposits are refundable in the event the trial is terminated prior to its conclusion with the vendor applying the deposit against the costs of winding down the trial.

Cash Flows

For the Year Ended December 31, 2015 and 2014

We used $19,039,401 of cash in our operations during the year ended December 31, 2015 , compared to $9,936,802 during the year ended December 31, 2014 . During 2015, we incurred expenses related to the start-up and planning of our ICT-107 Phase 3 trial. We also made deposits of approximately $4.0 million with Novella Clinical LLC, the project's clinical research organization, and other key vendors. These deposits will be applied by the vendors against the final amounts owed by the Company at the end of the trial. Additionally, we purchased many of the supplies that will be used during the course of the trial. We also incurred certain expenses related to the development of certain stem cell immunotherapies for the treatment of cancer. We expect these expenses to increase in future periods as we progress in the ICT-107 Phase 3 trial and as we develop our stem cell immunotherapies. As of December 31, 2014, our ICT-140 ovarian cancer program was placed on hold. As a result, we incurred minimal expenses related to this trial during 2015 and we expect future expenses to continue to decline until such time as we secure a partner for this program or obtain sufficient financial resources to complete the ICT-107 Phase 3 program. During 2014, we incurred a non-cash credit of $529,774 related to the revaluation of our warrant derivatives and we incurred a non-cash charge of $62,683 related to the increase in the number of warrants outstanding that was triggered by the issuance of common stock as part of our controlled equity offering. 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.

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. During the year ended December 31, 2014 , our investing cash flows used $28,575 primarily to acquire research and development equipment.

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. The Company also received its initial $4,000,000 award from CIRM. We received $5,541,322 from financing activities in 2014 , consisting of $1,045,000 from the exercise of stock options and $4,496,322 net proceeds from our controlled equity offering.

For the Year Ended December 31, 2014 and 2013

We used $9,936,802 of cash in our operations during the year ended December 31, 2014, compared to $8,787,217 during the year ended December 31, 2013. During 2014, we increased our research and development expenses related to ICT-121 and ICT-140. These increases were partially offset by decreases in our ICT-107 phase 2 trial. During 2014, we incurred a non-cash credit of $529,774 related to the revaluation of our warrant derivatives and we incurred a non-cash charge of $62,683 related to the increase in the number of warrants outstanding that was triggered by the issuance of common stock as part of our controlled equity offering.

During the year ended December 31, 2014, we used $28,575 in our investing activities primarily to acquire research and development equipment. During the year ended December 31, 2013, we used $44,372 of cash from our investing activities for the acquisition of computer equipment and a telephone system.

We received $5,541,332 from financing activities in 2014, consisting of $1,045,000 from the exercise of stock options and $4,496,322 net proceeds from our controlled equity offering. We received $10,261,272 in net proceeds from financing activities during the year ended December 31, 2013, consisting of $324,517 from the exercise of stock options, $5,030,677 from the exercise of warrants and $4,906,078 of net proceeds from our controlled equity offering.

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, 2015 , 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, 2015 .

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, 2015 , 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, 2015 , 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, 2015 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.

We will file with the SEC a definitive Proxy Statement (the 2016 Proxy Statement), not later than 120 days after the fiscal year ended December 31, 2015 . The information required by this item is incorporated herein by reference to the information contained in the 2016 Proxy Statement.

Item 11. Executive Compensation

The information required by this item is incorporated herein by reference to the information contained in the 2016 Proxy Statement.

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

The information required by this item is incorporated herein by reference to the information contained in the 2016 Proxy Statement.

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

The information required by this item is incorporated herein by reference to the information contained in the 2016 Proxy Statement.

Item 14. Principal Accounting Fees and Services.

The information required by this item is incorporated herein by reference to the information contained in the 2016 Proxy Statement.

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	033-17624NY	2.1	1/26/2006	
3.1	Amended and Restated Certificate of Incorporation	8-K	001-35560	3.1	9/24/2013	
3.2	Certificate of Amendment to Amended and Restated Certificate of Incorporation	8-K	001-35560	3.1	11/19/2015	
3.3	Amended and Restated Bylaws	S-8	333-171652	3.1	1/11/2011	
3.4	Amendment to the Amended and Restated Bylaws	8-K	001-35560	3.1	5/25/2012	
4.1	Form of Common Stock Certificate of the Registrant	SB-2	333-140598	4.1	2/12/2007	
4.2	Amended Certificate of Designations of Preferences, Rights and Limitations of Series A Preferred Stock dated May 3, 2010.	S-1	033-150277	3.6	05/12/2010	
4.3	Form of Warrant to Purchase Common Stock, originally issued in February 2011	8-K	033-17264-NY	4.1	2/25/2011	
4.4	Form of Warrant to Purchase Common Stock, originally issued in January 2012	8-K	033-17264-NY	4.1	1/10/2012	
4.5	Form of Warrant to Purchase Common Stock, originally issued in October 2012	8-K	001-35560	10.1	10/19/2012	
4.6	Form of Warrant to Purchase Common Stock, originally issued in February 2015	10-Q	001-35560	4.1	5/11/2015	
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	10.1	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	12/03/2009	
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	05/181/2010	
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.	10-Q	001-35560	10.1	5/11/2015	
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	Office Lease dated July 1, 2012 between Regent Business Centers and ImmunoCellular Therapeutics, Ltd.	10-Q	001-35560	10.1	08/14/2012	
10.37	Form of Warrant issued to participants in the October 18, 2012 underwritten public offering.	8-K	001-35560		10/19/2012	
10.38**	Employment Agreement dated December 3, 2012 between Andrew Gengos and ImmunoCellular Therapeutics, Ltd.	10-K	001-35560	10.54	03/11/2013	
10.39**	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	
10.40	Controlled Equity Offering ^{SM} Sales Agreement dated April 18, 2013 between ImmunoCellular Therapeutics, Ltd. and Cantor Fitzgerald & Co.	8-K	001-35560	10.1	04/18/2013	
10.41**	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	
10.42	Office Lease dated May 13, 2013 between Calabasas/Sorrento Square, LLC and ImmunoCellular Therapeutics, Ltd.	10-Q	001-35560	10.1	08/08/2013	
10.43	Master Services Agreement dated September 1, 2010 between Averion International Corp. and ImmunoCellular Therapeutics, Ltd.	10-Q	001-35560	10.2	08/08/2013	
10.44**	Employment Agreement dated August 19, 2013 between Anthony Gringeri and ImmunoCellular Therapeutics, Ltd.	10-Q	001-35560	10.1	11/07/2013	
10.45†	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	
10.46**	Amended and Restated 2006 Equity Incentive Plan of ImmunoCellular Therapeutics, Ltd.	10-Q	001-35560	10.3	11/07/2013	

10.47**	Amendment No. 1 to Amended and Restated 2006 Equity Incentive Plan of ImmunoCellular Therapeutics, Ltd.	10-Q	001-35560	10.4	11/07/2013	
10.48**	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	
10.49	Master Services Agreement dated February 19, 2014 between Aptiv Solutions, Inc. and ImmunoCellular Therapeutics, Ltd.	10-Q	001-35560	10	03/14/2014	
10.50**	Employment Agreement dated January 30, 2015 between Steven J. Swanson and ImmunoCellular Therapeutics, Ltd.	10-Q	001-35560	10.1	5/11/2015	
10.51†	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	
10.52†	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	
10.53**	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	
10.54†	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	
10.55†	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	
10.56**	Employment Agreement dated September 15, 2015 between David Fractor and ImmunoCellular Therapeutics. Ltd.	10-Q	001-35560	10.2	11/9/2015	
10.57**	Independent Contractor Services Agreement effective as of October 1, 2015 between John Yu and ImmunoCellular Therapeutics, Ltd.					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 30, 2016

By: /s/ Andrew Gengos

Andrew Gengos

President and Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Andrew Gengos 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/ Andrew Gengos Andrew Gengos	President, Chief Executive Officer and Director	March 30, 2016
/s/ David Fractor David Fractor	Principal Financial and Accounting Officer	March 30, 2016
/s/ Rahul Singhvi Rahul Singhvi, Sc.D.	Director	March 30, 2016
/s/ Gary S. Titus Gary S. Titus	Director	March 30, 2016
/s/ John S. Yu John S. Yu, M.D.	Director	March 30, 2016
/s/ Gregg A. Lapointe Gregg A. Lapointe	Director	March 30, 2016
/s/ Mark A. Schlossberg Mark A. Schlossberg	Director	March 30, 2016

ImmunoCellular Therapeutics, Ltd.

Index to Consolidated Financial Statements

Report of Independent Registered Public Accounting Firm

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

We have audited the accompanying consolidated balance sheets of ImmunoCellular Therapeutics, Ltd. (the "Company") as of December 31, 2015 and 2014, and the related consolidated statements of operations, shareholders' equity and cash flows for each of the three years in the period ended December 31, 2015. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audit included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, 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. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of ImmunoCellular Therapeutics, Ltd. as of December 31, 2015 and 2014, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2015 in conformity with accounting principles generally accepted in the United States of America.

The accompanying consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America, which contemplate continuation of the Company as a going concern. As discussed in Note 2 to the financial statements, the Company has an accumulated deficit as of December 31, 2015, and has incurred a significant net loss and sustained negative cash flows from operations since inception. In addition, the Company will need to raise significant capital within the next twelve months to continue its clinical trials. These matters raise substantial doubt about the Company's ability to continue as a going concern. Management's plans in regards to these matters are also described in Note 2. These consolidated financial statements do not include any adjustment that might result from the outcome of this uncertainty.

/s/ Marcum LLP

Marcum LLP
Los Angeles, CA
March 30, 2016

ImmunoCellular Therapeutics, Ltd.
Consolidated Balance Sheets

	December 31, 2015	December 31, 2014
Assets		
Current assets:		
Cash and cash equivalents	$ 22,604,481	$ 23,222,296
Supplies for clinical trials	1,158,632	—
Other assets	797,425	1,219,873
Total current assets	24,560,538	24,442,169
Property and equipment, net	180,922	47,365
Supplies for clinical trials	1,115,657	227,097
Deposits	4,176,280	356,367
Deferred financing costs	48,977	105,563
Total assets	$ 30,082,374	$ 25,178,561
Liabilities and Shareholders' Equity		
Current liabilities:		
Accounts payable	$ 1,161,258	$ 322,002
Accrued compensation and benefits	790,487	334,527
Accrued liabilities	317,653	632,670
Total current liabilities	2,269,398	1,289,199
CIRM liability	4,133,905	—
Warrant Liability	1,958,775	597,719
Total liabilities	8,362,078	1,886,918
Commitments and contingencies (Note 5)		
Shareholders' equity:		
Common stock, $0.0001 par value; 249,000,000 and 149,000,000 shares authorized as of December 31, 2015 and 2014 respectively; 90,310,149 and 63,604,823 shares issued and outstanding as of December 31, 2015 and December 31, 2014, respectively	9,031	6,360
Additional paid-in capital	95,849,005	84,632,209
Accumulated deficit	(74,137,740)	(61,346,926)
Total shareholders' equity	21,720,296	23,291,643
Total liabilities and shareholders' equity	$ 30,082,374	$ 25,178,561

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,

	2015	2014	2013
Revenues	$ —	$ —	$ —
Expenses:			
Research and development	10,896,591	5,969,182	5,339,716
General and administrative	4,616,500	3,889,359	4,120,603
Total expenses	15,513,091	9,858,541	9,460,319
Loss before other income (expense)			
and taxes	15,513,091	9,858,541	9,460,319
Interest income	19,863	13,917	17,345
Interest expense	(133,905)	—	—
Financing expense	(88,939)	(62,683)	—
Change in fair value of			
warrant liability	2,925,258	529,774	642,411
Loss before taxes	(12,790,814)	(9,377,533)	(8,800,563)
Taxes	—	—	—
Net loss	$ (12,790,814)	$ (9,377,533)	$ (8,800,563)
Net loss per share	$ (0.15)	$ (0.16)	$ (0.16)
Weighted average number of shares outstanding basic and diluted:	87,203,675	59,915,086	54,281,189

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

ImmunoCellular Therapeutics, Ltd.

Consolidated Statements of Shareholders' Equity

	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Total
	Shares	Amount			
Balance at January 1, 2013	51,500,996	$ 5,150	$ 66,231,694	$ (43,168,830)	$ 23,068,014
Exercise of warrants	3,441,551	344	6,175,992	—	6,176,336
Cashless exercise of warrants	31,155	3	(3)	—	—
Exercise of stock options	528,702	53	324,464	—	324,517
Cashless exercise of stock options	149,385	15	(15)	—	—
Stock based compensation	—	3	724,212	—	724,215
Common stock issued for licensing rights at $2.41 per share	28,300	17	74,997		75,014
Common stock issued through controlled equity offering at $2.82 per share	1,862,142	169	4,905,892		4,906,061
Net loss	—	—	—	(8,800,563)	(8,800,563)
Balance at December 31, 2013	57,542,231	5,754	78,437,233	(51,969,393)	26,473,594
Exercise of warrants	—	—			—
Cashless exercise of warrants	—	—			—
Exercise of stock options	950,000	95	1,044,905		1,045,000
Cashless exercise of stock options	28,473	3	(3)		—
Stock based compensation	—	—	654,260		654,260
Common stock issued through controlled equity offering at an average price of $0.92 per share	5,084,119	508	4,495,814	—	4,496,322
Net loss	—	—	—	(9,377,533)	(9,377,533)
Balance at December 31, 2014	63,604,823	6,360	84,632,209	(61,346,926)	23,291,643
Exercise of stock options	25,000	3	6,747	—	6,750
Cashless exercise of stock options	10,326	1	(1)	—	—
Stock based compensation	20,000	2	916,026	—	916,028
Common stock and warrants issued for cash during February 2015 at $0.60 per unit, net of offering costs	26,650,000	2,665	10,294,024	—	10,296,689
Net loss	—	—	—	(12,790,814)	(12,790,814)
Balance at December 31, 2015	90,310,149	$ 9,031	$ 95,849,005	$ (74,137,740)	$ 21,720,296

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,

	2015	2014	2013
Cash flows from operating activities:			
Net loss	$ (12,790,814)	$ (9,377,533)	$ (8,800,563)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	36,193	47,656	50,402
Accrued Interest on CIRM award	133,905	—	—
(Gain) loss on disposal of assets	—	(4)	3,817
Change in fair value of warrant liability	(2,925,258)	(529,774)	(642,411)
Financing expense	88,939	62,683	—
Stock-based compensation	916,028	654,260	724,212
Changes in assets and liabilities:			
Other assets	422,448	(9,097)	(426,640)
Supplies for clinical trials	(2,209,192)	(227,097)	—
Deposits	(3,657,913)	(339,259)	—
Accounts payable	805,320	(644,587)	128,175
Accrued liabilities	140,943	425,950	175,791
Net cash used in operating activities	(19,039,401)	(9,936,802)	(8,787,217)
Cash flows from investing activities:			
Purchase of property and equipment	(169,750)	(28,975)	(44,372)
Proceeds from sale of property and equipment	—	400	—
Net cash used in investing activities	(169,750)	(28,575)	(44,372)
Cash flows from financing activities:			
Proceeds from exercise of stock options	6,750	1,045,000	324,517
Proceeds from exercise of warrants	—	—	5,030,677
Deferred financing costs	(15,041)	—	—
Proceeds from CIRM award	4,000,000	—	—
Proceeds from issuance of common stock and warrants net of offering costs	14,599,627	4,496,322	4,906,078
Net cash provided by financing activities	18,591,336	5,541,322	10,261,272
Increase (decrease) in cash and cash equivalents	(617,815)	(4,424,055)	1,429,683
Cash and cash equivalents, beginning of period	23,222,296	27,646,351	26,216,668
Cash and cash equivalents, end of period	$ 22,604,481	$ 23,222,296	$ 27,646,351
Supplemental cash flows disclosures:			
Interest expense paid	$ —	$ —	$ —
Income taxes paid	$ —	$ —	$ —
Supplemental non-cash financing disclosures:			
Warrant liability converted to additional paid-in capital	$ —	$ —	$ 1,145,659
Common stock issued for license rights	$ —	$ —	$ 75,000
Deferred offering costs	$ 33,936	$ 105,563	$ —

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, that were formed during 2014.

The Company has been primarily engaged in the acquisition of certain intellectual property, together with development of its immunotherapy product candidates and the recent clinical testing activities for one of its immunotherapy product candidates, and has not generated any recurring revenues. The Company's lead product candidate, ICT -107 , has recently begun screening activities for its Phase 3 trial. The Company has two other product candidates, ICT -140 and ICT -121 , both with investigational new drug (IND) applications active at the US Food and Drug Administration (FDA). Currently, the Company has suspended development of ICT -140 until the Company has either secured a partner for the program or sufficient financial resources to complete the ICT -107 Phase 3 program. Additionally, the Company has acquired the rights to technology for the development of certain stem cell immunotherapies for the treatment of cancer. The Company has incurred operating losses and, as of December 31, 2015 , the Company had an accumulated deficit of $74,137,740 . 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

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, 2015 , the Company has incurred accumulated losses of $74,137,740 and as of December 31, 2015 , the Company had $22,604,481 of cash. The Company expects that its costs will increase in 2016 primarily to fund the phase 3 trial of ICT-107, and that it will not have enough cash resources to fund the business for at least 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. If the Company cannot raise funds, it might be forced to make substantial reductions in the on-going clinical trials thereby damaging the Company's reputation in the biotech and medical communities which could adversely affect the Company's ability to implement its business plan and its viability. These factors raise substantial doubt about the Company's ability to continue as a going concern. These financial statements do not include any adjustment that might result from the outcome of this uncertainty.

The Company's plans to improve its liquidity require the Company to raise additional financing through the issuance of financial instruments such as equity and warrants or through the receipt of grants and awards.

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, 2015 and December 31, 2014 , the Company had $21,818,229 and $25,913,893 , respectively, of certificates of deposit and U.S. Government issued notes. The Company places its cash and cash equivalents with various banks and U.S. Governmental Agencies in order to maintain insurance on all of its investments.

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.

Supplies - Supplies are stated at the lower of cost or market, 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. Management analyzes historical and prospective usage to estimate obsolescence and did not record any reserve for obsolescence during the years ended December 31, 2015, 2014 and 2013. Additionally, management has estimated supply usage in the next twelve months to determine the balance sheet classification between current and non-current.

Stock Based Compensation— The Company records the cost for all share-based payment transactions in the Company's consolidated financial statements. Stock option grants issued to employees and officers and directors were valued using the Black-Scholes pricing model.

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

	Year Ended December 31, 2015	Year Ended December 31, 2014	Year Ended December 31, 2013
Risk-free interest rate	1.80%	1.64%	0.49%
Expected dividend yield	None	None	None
Expected life	6.48 years	5.21 years	4.39 years
Expected volatility	93.4%	90.60%	66.1%
Expected forfeitures	—%	—%	—%

The weighted-average grant-date fair value of options granted during the year ended December 31, 2015 , 2014 and 2013 was $0.34 , $0.96 and $1.89 , 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 our 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. For the years ended December 31, 2015 , 2014 and 2013 , the expected volatility is based upon the historical volatility of the Company's common stock. Forfeitures have been estimated to be zero as actual results are not material.

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, 2015 , the Company had 112,040,536 shares of authorized and unreserved common stock. As of December 31, 2015 , the Company had 4,095,267 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, 2015 and 2014 , 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, 2015 and 2014 , 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, 2010 for the state and December 31, 2011 for the federal taxing authority.

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. The fair value of warrant liability is estimated using the Binomial Lattice option valuation model.

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 3 inputs (See Note 6).

Reclassification - Certain prior year amounts included in the prior year consolidated financial statements have been reclassified to conform to the current year presentation.

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.

The following critical accounting policies affect the company's more significant judgments and estimates used in the preparation of these financial statements:

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 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.

Warrant liability - The fair value of warrant liability is 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 options.

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. Common share equivalents (which consist of options and warrants) are excluded from the computation of diluted net loss per share for the years ended December 31, 2015 , 2014 and 2013 , 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 38,907,089 , 19,420,978 and 26,108,984 shares at December 31, 2015 , 2014 and 2013 , respectively.

Recently Issued Accounting Standards —In August 2014, the FASB issued ASU No. 2014-15, which applies to entities that have substantial doubt about their ability to continue as a going concern. This update requires management to assess the probability about the entity's ability to remain as a going concern for a period of one year from the date the financial statements are ready to be issued. Depending on management's conclusions about the entity's ability to remain as a going concern, the entity must make certain disclosures in its financial statements. This ASU is effective for annual periods beginning after December 15, 2016. The adoption of this ASU is not expected to have a material impact on the Company's consolidated results of operations, financial condition or liquidity.

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.

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, 2015	December 31, 2014
Computers	$ 66,945	$ 59,076
Research equipment	305,066	143,185
	372,011	202,261
Accumulated depreciation	(191,089)	(154,896)
	$ 180,922	$ 47,365

All of the research equipment is held by the Company's vendors. Depreciation expense was $36,193 , $47,656 and $50,402 for the years ended December 31, 2015 , 2014 and 2013 , respectively.

4. Related-Party Transactions

Cedars-Sinai Medical Center License Agreement

Dr. John Yu, our founder and member of our 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 specified milestone payments upon commencement of the first Phase 3 clinical trial for the Company's first product and upon first commercial sale of the Company's first product. If both of these milestones are met, the required milestone payments will total $1.1 million . 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. The Company did not incur any licensing fees to Cedars-Sinai during the three years ended 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, 2015, 2014 and 2013, the Company incurred research expenses from Cedars-Sinai of $55,200 , $140,508 , and $137,395 . As of December 31, 2015, Cedars-Sinai is not performing any research activities on behalf of the Company.

5. Commitments and Contingencies

SEC Investigation

The Company has agreed in principle with the staff of the SEC on a proposed settlement framework related to an investigation principally of the Company's 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 the Company or investor relations firms hired by the Company. The Company would consent to the entry of an administrative order requiring that it cease and desist from any future violations of Sections 5, 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, subject to approval by the Commissioners of the SEC, without admitting or denying any allegations. The proposed settlement also involves the adoption of certain corporate governance amendments to the Company's policies and practices, in particular as it relates to the retention of investor relations and public relations firms. The proposed settlement is contingent upon execution of a formal offer of settlement and approval by the Commissioners of the SEC, neither of which can be assured. Based upon the settlement framework with the staff of the SEC, the Company has not accrued and does not currently expect to accrue a liability related to this matter. However, any final settlement must be approved by the Commission. If the Commission does not approve the settlement, the Company 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.

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.

Sponsored Research Agreements

Novella Clinical LLC

On June 30, 2015, the Company entered into a Master Clinical Research Services Agreement with Novella Clinical LLC (Novella Clinical) to conduct the Phase 3 registration trial of ICT-107. Novella Clinical is a full-service, global clinical research organization providing clinical trial services to small and mid-sized oncology companies. Novella Clinical will supervise the trial in the United States, Europe and Canada and will recruit approximately 400 patients with newly diagnosed glioblastoma. As of December 31, 2015, the Company has deposits of $3,725,722 with Novella Clinical that will be applied against the final trial related invoices. Since the trial is not expected to be completed within the next twelve months, this amount is included in deposits and reflected as a non-current asset on the December 31, 2015 balance sheet. The Company may terminate this agreement upon 60 days' notice.

ICON (formerly known as Aptiv Solutions)

The Company has contracted with ICON to provide certain services related to the Company's ICT-107 Phase 2 trial. The original agreement was entered into in August of 2010. On September 17, 2013, the Company entered into a Master Services Agreement with ICON to provide certain services related to the Company's products under development. Simultaneously, the Company and ICON entered into Project Agreement Number 1 for the ICT-140 Phase 2 trial that provides for payments of approximately $ 2.7 million until completion of the services described therein. On May 6, 2014, the Company and ICON entered into Amendment #1 to Project Agreement Number 1 to amend the project schedule and provide additional services for an additional fee of $170,004 . On August 21, 2014, the Company and ICON entered into Amendment #2 to Project Agreement Number 1 to amend the project schedule and replace the aggregate budget. The total aggregate fee pursuant to the original agreement and the two modifications is $3.5 million . Currently, the Company has suspended development of ICT-140 and, therefore, there is no ongoing commitment related to this program.

On July 17, 2014, the Company and ICON entered into Project Agreement CD-133 for the ICT-121 Phase 1 trial that provides for payments of approximately $2.3 million until completion of the services described therein.

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.

The University of Pittsburgh Patent License Agreement

On March 20, 2012, the Company entered into an Exclusive License Agreement with the University of Pittsburgh under which the Company has licensed intellectual property surrounding EphA 2 , a tyrosine kinase receptor that is highly expressed by ovarian cancer and other advanced and metastatic malignancies. The License Agreement grants a world-wide exclusive license to the intellectual property for ovarian and pancreatic cancers; and a world-wide non-exclusive license to the intellectual property for brain cancer.

Pursuant to the License Agreement, the Company agreed to pay an upfront nonrefundable and noncreditable licensing fee and nonrefundable and noncreditable maintenance fees due annually starting 12 months from the anniversary of the effective date of the License Agreement. In addition, the Company has agreed to make certain milestone payments upon completion of specified milestones and to pay customary royalties based on a specified percentage of net sales and sublicensing payments, as applicable.

In April 2015, the Company exercised its right to terminate this agreement effective October 12, 2015.

Torrey Pines

On October 1, 2012, the Company entered into a Contract Services Agreement with Torrey Pines under which the Company has engaged Torrey Pines to determine the immunogenicity of certain peptides that are used in conjunction with the Company's ICT -107 Phase 2 trial and in the development of ICT -140 . The Company agreed to pay an upfront nonrefundable and noncreditable fee and is obligated to pay the remainder at the conclusion of the contract. On April 1, 2013, the Company and Torrey Pines expanded the scope of work to be completed by Torrey Pines under an additional Contract Services Agreement. This supplemental agreement provides for the Company to pay an upfront fee and additional fees at the conclusion of the contract. On April 1, 2014, the Company and Torrey Pines entered into an Amended and Restated Contract Services Agreement for Torrey Pines to perform certain additional services in connection with the Company's vaccine technologies.

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 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.

Manufacturing

PharmaCell B.V.

In March 2015, the Company entered into an Agreement for GMP manufacturing of ICT-107 with PharmaCell B.V. (PharmaCell), pursuant to which PharmaCell will provide contract manufacturing services for the European production of ICT-107, a dendritic cell immunotherapy for the treatment of newly diagnosed glioblastoma.

The Company will pay for manufacturing services performed by PharmaCell under the Agreement pursuant to statements of work entered into from time to time. The Company may unilaterally terminate the Agreement upon 90 days' written notice to PharmaCell, or 30 days' written notice in the event of a clinical hold or other suspension or early termination of a clinical trial. PharmaCell may terminate the Agreement in certain circumstances upon 90 days' written notice to the Company. Either party may terminate the Agreement in the event of the other party's insolvency or for the other party's material breach of its obligations under the Agreement if such breach remains uncured after 30 days of receiving written notice of such breach. Absent early termination, the Agreement will continue until all services under applicable statements of work have been completed.

PCT, LLC

On June 11, 2015, the Company entered into a Services Agreement with PCT, LLC, a Caladrius Company (PCT), a subsidiary of Caladrius Biosciences, Inc.

Pursuant to the terms of the Agreement, PCT will provide current good manufacturing practice (cGMP) services for the Phase 3 manufacture of ICT-107 and Phase 1 manufacture of ICT-121. PCT will provide, among other things, a controlled environment room on a semi-dedicated basis and qualified personnel to conduct runs as the parties mutually agree in writing

and schedule. PCT's facilities are registered with the FDA for testing; packaging; processing; storage; labeling and distribution of Peripheral Blood stem and Somatic Cell therapy products, and maintain cGMP-compliant quality systems.

The Company has agreed to pay monthly fees in connection with the use of a controlled environment room on a semi-dedicated basis and monthly fees for PCT personnel performing services under the Agreement.

Services to be performed under the Agreement terminate on the earlier of (i) December 31, 2018, (ii) the date the parties mutually agree, (iii) at any time following the earlier of the one year anniversary of the date on which the Company notifies PCT that services in the semi-dedicated controlled environment room are to commence and August 1, 2016, on the last day of the month following at least 120 days' written notice from the Company to PCT, or (iv) the last day of the month following at least 60 days' written notice from the Company to PCT that the Company has received a clinical hold issued by the FDA ordering the Company to suspend clinical trials for ICT-107. Either party may terminate the Agreement in the event of the other party's insolvency or for the other party's material breach of its obligations under the Agreement if such breach remains uncured after 30 days of receiving written notice of such breach.

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 $1.3 million and the potential bonus is approximately $450,000 . During the years ended December 31, 2015 , 2014 and 2013 , the Company issued an aggregate of 1,125,000 , 317,500 and 489,000 stock options to its management at a weighted average exercise price of $0.58 , $1.34 and $2.66 , respectively. All of the aforementioned stock options vest over a period of 4 years . Additionally, during the year ended December 31, 2015, the Company issued 260,000 restricted shares of the Company's common stock that will vest in March 2017. 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 $856,000 . These members of management would also be entitled to COBRA for various periods of time.

Operating Lease

The Company entered into a lease for new office space effective June 15, 2013 and continuing through August 31, 2016 at an initial monthly rental of $8,063 . The monthly rental increases by 3% on each anniversary date of the lease. Rent for the months of August and September 2013 was abated. Rent expense was approximately $102,000 , $99,000 and $80,000 for the years ended December 31, 2015 , 2014 and 2013 , respectively.

6. Shareholders' Equity

Common Stock

In February 2011, the Company raised $7,460,129 (after commissions and offering expenses) from the sale of 5,219,768 shares of common stock and warrants to purchase 2,818,675 shares of common stock at an exercise price of $2.25 per share, to various investors in a private placement. The warrants 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 $1.55 . The January and October 2012, the February 2015 underwritten public offerings and the Company's Controlled Equity Offering (see below) provided for the issuance of shares at prices that were less than $1.55 . Accordingly, the exercise price of these warrants was adjusted to $1.44 and the number of warrants was proportionately increased to 3,666,836 net of exercises. (See "Warrants and Warrant Liabilities" below)

In January 2012, the Company raised $9,271,370 in an underwritten public offering, net of offering expenses of approximately $1.1 million , from the sale of 9,489,436 shares of common stock and warrants to purchase 4,744,718 shares of common stock at an exercise price of $1.41 per share, to various investors in an underwritten public offering. The warrants have a term of 60 months from the date of issuance. The warrants do not contain any features (such as net cash settlement or anti-dilution features) that would preclude the Company from accounting for these warrants as equity. Accordingly, the warrants are accounted for as equity.

In October 2012, the Company raised $19,359,553 in an underwritten public offering, net of offering expenses of approximately $1.6 million , from the sale of 10,000,000 shares of common stock and warrants to purchase 4,500,000 shares of common stock at an exercise price of $2.65 per share, to various investors in an underwritten public offering. The warrants have a term of 60 months from the date of issuance. The warrants do not contain any features (such as net cash settlement or

anti-dilution features) that would preclude the Company from accounting for these warrants as equity. Accordingly, the warrants are accounted for as equity.

In February 2015, the Company raised approximately $14,500,000 (after commissions and offering expenses) from the sale of 26,650,000 shares of common stock and warrants to purchase 18,655,000 shares of common stock at an exercise price of $0.66 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 $0.60 . The warrants have a term of 60 months 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 (see “Warrants and Warrant Liabilities” below.)

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 149,000,000 to 249,000,000 . The stockholders of the Company approved the increase in authorized shares at a special meeting of the stockholders held on November 16, 2015.

Controlled Equity Offering

On April 18, 2013, the Company entered into a Controlled Equity Offering ^{SM} 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 . 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 MKT, 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 3.0% 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 MKT approved the listing of 10,593,220 shares of our common stock in connection with the Sales Agreement. Through December 31, 2015 , we sold 6,946,261 shares of our common stock under the Sales Agreement that resulted in net proceeds to the Company of approximately $9,402,383 . 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. As of the expiration date, aggregate gross sales for additional common stock of approximately $7,081,494 remained available under the Sales Agreement . See Note 10 - Subsequent Events for a description of the Company's January 2016 Registration Statement.

Stock Options

In January 2006, the Company adopted the 2006 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 not be less than 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 more than 10% of the total combined voting power of all classes of stock of the Company; in which case the option price may not be less than 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 6,000,000 shares of common stock for issuance under the Plan. On October 24, 2011, the Company’s shareholders voted to increase the number of authorized shares reserved for the Plan to 8,000,000 shares. On September 20, 2013, the Company’s shareholders voted to increase the number of authorized shares reserved for the Plan to 12,000,000 shares. Options to purchase 4,636,479 common shares have been granted under the Plan and are outstanding as of December 31, 2015 . As of December 31, 2015 , there were 4,095,267 options available for issuance under the Plan. See additional discussion in Note 10.

The following is a summary of stock option grants issued outside the Plan:

In January 2007, the Company granted an option to purchase 1,500,000 shares of its common stock at an exercise price of $1.10 per share to the Chairman of the Company's Scientific Advisory Board.

In November 2006, the Company granted an option to purchase 300,000 shares of its common stock at an exercise price of $1.00 per share to an affiliate of the Company's then Chairman of the Board.

In November 2006, the Company granted an option to purchase 5,933,424 shares of its common stock at an exercise price of $1.00 per share to a Board member in connection with the Cedars-Sinai license acquisition.

The following table summarizes stock option activity for the Company during the three years ended December 31, 2015 :

	Options	Weighted Average Exercise Price	Weighted Average Contractual Term	Aggregate Intrinsic Value
Outstanding December 31, 2012	10,581,194	$ 1.16		
Granted	862,287	$ 2.67		
Exercised	(829,702)	$ 0.92		
Forfeited or expired	(147,084)	$ 1.81		
Outstanding December 31, 2013	10,466,695	$ 1.37		
Granted	547,117	$ 1.28		
Exercised	(624,047)	$ 2.36		
Forfeited or expired	(1,075,000)	$ 1.08		
Outstanding December 31, 2014	9,314,765	$ 1.33		
Granted	1,843,000	$ 0.54		
Exercised	(50,000)	$ 0.27		
Forfeited or expired	(387,861)	$ 1.76		
Outstanding December 31, 2015	10,719,904	$ 1.18	3.12	$ —
Vested or expected to vest at December 31, 2015	8,263,962			

As of December 31, 2015 , the total unrecognized compensation cost related to unvested stock options amounted to $1,909,361 , which will be amortized over the weighted-average remaining requisite service period of approximately 14 months .

Warrants

In connection with the May 2010 common stock private placement, the Company issued to the investors warrants to purchase 1,245,455 shares of the Company's common stock at $1.50 per share. The warrants had a term of 36 months from the date of issuance. As of December 31, 2015 these warrants have been fully exercised, except for warrants to purchase 4,000 shares of the Company's common stock that expired. (see "Warrant Liability" below)

In connection with the sale of Preferred Stock in May 2010, the Company issued warrants to purchase 1,350,000 shares of common stock at an exercise price of $2.50 . The warrants had a five -year term from the date of issuance. On May 16, 2015, the remaining warrants to purchase 1,290,996 shares of the Company's common stock at $2.50 expired. (See "Warrant Liability" below.)

In connection with the February 2011 common stock private placement, the Company issued to the investors warrants to purchase 2,818,675 shares of the Company's common stock at $2.25 per share. The warrants have a five -year term from the date of issuance and contain a provision that provides for an adjustment to the exercise price in the event the Company completes an equity financing at a per share price of its common stock that is less than the adjusted exercise price. As a result of the January and October 2012 financings, the exercise price of the warrants was adjusted to $1.87 and the number of warrants was proportionately increased to 2,823,670 net of exercises. During 2014, the exercise price was further adjusted to $1.79 and the number of warrants was proportionately increased to 2,949,867 net of exercises to reflect the issuances pursuant to the Company's Controlled Equity Offering [SM] . As a result of the February 2015 underwritten public offering, the exercise price of the warrants was further adjusted to $1.44 and the number of warrants was proportionately increased to 3,666,836 . As of December 31, 2015 , warrants to purchase 3,666,836 shares of the Company's common stock were outstanding related to this private placement. (See "Warrant Liability" below and Note 10 - Subsequent Events.)

In connection with the January 2012 underwritten public offering, the Company issued to the investors warrants to purchase 4,744,718 shares of the Company's common stock at $1.41 per share. The warrants have a five -year term from the date of issuance. These warrants qualify for equity treatment since they do not have any provisions that would require the Company to redeem them for cash or that would result in an adjustment to the number of warrants. As of December 31, 2015 , warrants to purchase 1,418,575 shares of the Company's common stock remain outstanding relating to this public offering.

In connection with the October 2012 underwritten public offering, the Company issued to the investors warrants to purchase 4,500,000 shares of the Company's common stock at $2.65 per share. The warrants have a five -year term from the date of issuance. These warrants qualify for equity treatment since they do not have any provisions that would require the Company to redeem them for cash or that would result in an adjustment to the number of warrants. As of December 31, 2015 , warrants to purchase 4,446,775 shares of the Company's common stock remain outstanding relating to this public offering.

In connection with the February 2015 underwritten public offering, the Company issued to the investors warrants to purchase 18,655,000 shares of the Company's common stock at $0.66 per share. The warrants have a five -year term from the date of issuance and contain a provision that provides for a proportionate adjustment to the exercise price in the event the Company completes an equity financing at a per share price of its common stock that is less than the adjusted exercise price. Accordingly, these warrants do not qualify for equity treatment. As of December 31, 2015, warrants to purchase 18,655,000 shares of the Company's common stock remain outstanding relating to this public offering. (See "Warrant Liability" below.)

Warrant Liability

The Company's warrant liability is adjusted to fair value each reporting period and is influenced by several factors, including but not limited to, the price of the Company's common stock as of the balance sheet date. On December 31, 2015 , the price per share of Company's common stock was $0.36 per share compared to $0.73 per share at December 31, 2014 and $0.93 per share at December 31, 2013 .

In connection with the May 2010 common stock private placement, the Company issued to the investors warrants to purchase 1,245,455 shares of the Company's common stock at $1.50 per share. Of the total proceeds from the May 2010 common stock private placement, $834,455 was allocated to the freestanding warrants associated with the units based upon the fair value of the warrants determined under the Black Scholes option pricing model. The warrants contain a provision whereby the warrant exercise price would be decreased in the event that future common stock issuances are made at a price less than $1.00 . Due to the potential variability of their exercise price, these warrants do not qualify for equity treatment, and therefore are recognized as a liability. The warrant liability is adjusted to fair value each reporting period, and any change in value is recognized in the statement of operations. Prior to 2011, the Company concluded that the Black-Scholes method of valuing the price adjustment feature does not materially differ from the valuation of such warrants using the binomial lattice simulation models, and therefore, the use of the Black-Scholes valuation model was considered a reasonable method to value the warrants. The assumptions used in the Black Scholes model for determining the initial fair value of the warrants were as follows: (i) dividend yield of 0% ; (ii) expected volatility of 102% , (iii) risk-free interest rate of 1.375% , and (iv) contractual life of 36 months . Effective January 1, 2011 the Company determined that it was more appropriate to value the warrants using a binomial lattice simulation model. During 2013, the remaining warrants were fully exercised; however, the Company recorded a charge to other expense of $583,134 as the Company revalued the warrants through the date of exercise.

In connection with the sale of Preferred Stock in 2010, the Company vested warrants to purchase 1,350,000 shares of the Company's common stock at an exercise price of $2.50 per share. Of the total proceeds from the May 2010 preferred stock sale, $5,710,500 was allocated to the freestanding warrants associated with the units based upon the fair value of these warrants determined under the Black Scholes option pricing model. The warrants contain a provision whereby the warrant may be settled for cash in connection with a change of control with a private company. Due to their potential cash settlement, these warrants do not qualify for equity treatment, and therefore are recognized as a liability. The warrant liability is adjusted to fair value each reporting period and any change in value is recognized in the statement of operations. Prior to 2011 , the Company concluded that the Black-Scholes method of valuing the price adjustment feature does not materially differ from the valuation of such warrants using the Monte Carlo or binomial lattice simulation models, and therefore, the use of the Black-Scholes valuation model was considered a reasonable method to value the warrants. The assumptions used in the Black Scholes model for determining the initial fair value of the warrants were as follows: (i) dividend yield of 0% ; (ii) expected volatility of 102% , (iii) risk-free interest rate of 2.50% , and (iv) contractual life of 60 months . Effective January 1, 2011, the Company determined that it was more appropriate to value the warrants using a binomial lattice simulation model. The lattice simulation model used by the Company at December 31, 2014 , assumed (i) dividend yield of 0% ; (ii) expected volatility of 106% ; (iii) risk free rate of 0.04% and (iv) expected term of 0.34 years . For the year ended December 31, 2014 , the Company recorded a credit to other expense of $260,781 . For the year ended December 31, 2015 , the Company recorded a credit to other income of $7,746 . During 2015, the remaining warrants expired.

In connection with the February 2011 common stock private placement, the Company issued to the investors warrants to purchase 2,818,675 shares of the Company's common stock at $2.25 per share. Of the total proceeds from the February 2011 common stock private placement, $2,476,790 was allocated to the freestanding warrants associated with the units based upon the fair value of the warrants determined under the Binomial lattice model. The warrants 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 $1.55 . Due to the potential variability of their exercise price, these warrants do not qualify for equity treatment, and therefore are recognized as a liability. As a result of the January and October 2012 financings, the exercise price of the warrants was adjusted to $1.87 and the number of warrants was proportionately increased to 2,823,670 net of exercises. The Company recorded a charge to financing expense of $397,294 to reflect the issuance of the additional warrants. As a result of the Company's Controlled Equity Offering [SM] during 2014, the exercise price of the warrants was adjusted to $1.79 and the number of warrants was proportionately increased to 2,949,867 , net of exercises. The Company recorded a charge to financing expense of $62,683 to reflect the issuance of the additional warrants. As a result of the Company's February 2015 underwritten public offering, the exercise price of the warrants was adjusted to $1.44 and the number of warrants was proportionately increased to 3,666,836 . The warrant liability is adjusted to fair value each reporting period, and any change in value is recognized in the statement of operations. The Company initially valued these warrants using a binomial lattice simulation model assuming (i) dividend yield of 0% ; (ii) expected volatility of 146% ; (iii) risk free rate of 1.96% and (iv) expected term of five years . Based upon those calculations, the Company calculated the initial valuation of the warrants to be $2,476,790 . The lattice simulation model used by the Company at December 31, 2014 assumed (i) dividend yield of 0% ; (ii) expected volatility of 148% ; (iii) risk free rate of 0.31% and (iv) expected term of 1.14 years . For the year ended December 31, 2014 , the Company recorded a credit to other expense of $268,993 . As of December 31, 2015 , the Company revalued the warrants using the binomial lattice simulation model assuming (i) dividend yield of 0% ; (ii) expected volatility of 50% ; (iii) risk free rate of 0.15% and (iv) expected term of 0.14 years . For the year ended December 31, 2015 , the Company recorded a credit to other income of $678,912 . As of December 31, 2015 , the carrying value of the warrant liability is $0 .

In connection with the February 2015 underwritten public offering, the Company issued to the investors warrants to purchase 18,655,000 shares of the Company's common stock at $0.66 per share. The warrants 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 $0.66 . Due to the potential variability of their exercise price, these warrants do not qualify for equity treatment, and therefore are recognized as a liability. 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 5 years. Based upon these calculations, the Company calculated the initial valuation of the warrants to be $4,197,375 . As of December 31, 2015, the Company revalued the warrants using the binomial lattice simulation model assuming (i) dividend yield of 0% ; (ii) expected volatility of 91% ; (iii) risk free rate of 1.56% and (iv) expected term of 4.11 years. For the year ended December 31, 2015, the Company recorded a credit to other income of $ 2,238,600 . As of December 31, 2015, the carrying value of the warrant liability is $ 1,958,775 .

The below table summarizes the warrant liability activity for the years ended December 31, 2015 , 2014 and 2013 . The gain included in net loss is reflective of several changes in the assumptions used in the computation of fair value, including the decrease in the Company's stock price, during the years ended December 31, 2015 , 2014 and 2013 .

	2015	2014	2013
Beginning Balance, January 1	$ 597,719	$ 1,064,810	$ 2,852,880
Issuance of warrants and effect of repricing	4,286,314	62,683	—
Exercise of warrants	—	—	(1,145,659)
(Gain) or loss included in earnings	(2,925,258)	(529,774)	(642,411)
Transfers in and/or out of Level 3	—	—	—
Ending Balance December 31,	$ 1,958,775	$ 597,719	$ 1,064,810

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 provides for a $4,000,000 project initial payment, which was received during the fourth quarter of 2015, and up to $15,919,449 in future milestone payments that are primarily dependent on patient enrollment in the ICT-107 Phase 3 trial. Under the terms of the CIRM award, the Company is obligated to share future ICT-107 related revenue with CIRM. The percentage of revenue sharing is dependent on the amount of the award received by the Company and whether the revenue is from product sales or license fees. The maximum revenue sharing amount the Company may be required to pay to CIRM is equal to nine (9) times the total amount

awarded and received by the Company. The Company has the option to decline any and all amounts awarded by CIRM. As an alternative to revenue sharing, the Company has 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 will be 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 (0.61% as of December 31, 2015) plus 25% per annum. Since the Company may be required to repay some or all of the amounts awarded by CIRM, the Company plans to account for this award as a liability rather than revenue. If the Company was to lose this funding, it may be required to delay, postpone, or cancel its clinical trials or otherwise reduce or curtail its operations unless it is able to obtain adequate financing for its clinical trials from additional sources. As of December 31, 2015 , the Company has accrued interest of $133,905 , which is included in the CIRM liability on the Consolidated Balance Sheets.

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, 2015 and 2014 .

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, 2015 , 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 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:

	2015	2014	2013
Income tax benefit at the federal statutory rate	(34)%	(34)%	(34)%
State income tax benefit, net of federal tax benefit	(6)%	(6)%	(6)%
Change in fair value of warrant liability	8 %	2 %	7 %
Change in valuation allowance for deferred tax assets	32 %	38 %	33 %
Total	— %	— %	— %

Deferred taxes consisted of the following:

	December 31, 2015	December 31, 2014	December 31, 2013
Net operating loss carryforwards	$ 20,091,036	$ 16,302,000	$ 15,759,274
Stock-based compensation	2,599,308	2,191,000	2,020,987
Less valuation allowance	(22,690,344)	(18,493,000)	(17,780,261)
Net deferred tax asset	$ —	$ —	$ —

The valuation allowance increased by $4,197,344 , $712,739 and $3,161,558 during the years ended December 31, 2015 , 2014 and 2013 , respectively.

As of December 31, 2015 , the Company had federal and California income tax net operating loss carryforwards of approximately $50.1 million . These net operating losses will begin to expire in 2022 and 2016 , 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. While the Company underwent an ownership change in 2012 as defined by Section 382 of the Internal Revenue Code, management estimated that the Company has not incurred any limitations on its ability to utilize its net operating losses under Section 382 of the Internal Revenue Code during 2013. The Company has not

determined whether an ownership change has occurred as a result of the Company's issuance of common stock in February 2015 and consequently, has not determined if it will incur any limitations on its ability to utilize its net operation losses under Section 382.

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.

10. Subsequent Events

Controlled Equity Offering

Subsequent to December 31, 2015, 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 million . See additional discussion in Note 6.

Subsequent to December 31, 2015, the Company sold 1,417,648 shares of its common stock under the Controlled Equity Offering, which resulted in net proceeds of approximately $317,220 . Aggregate gross sales for additional common stock of approximately $14,754,463 remain available under the Sales Agreement.

Warrant Expiration

On February 24, 2016, warrants to purchase 3,666,836 shares of the Company's common stock issued in connection with the February 2011 common stock private placement expired unexercised. See additional discussion in Note 6.

Adoption of 2016 Plan and Stock Option Grants

The Company's 2006 Equity Incentive Plan expired in January 2016. On March 11, 2016, the Company's Board of Directors adopted the 2016 Equity Incentive Plan (2016 Plan) and reserved 10,000,000 shares of common stock for issuance under the 2016 Plan. The 2016 Plan is subject to approval by the Company's Stockholders at its 2016 Annual Meeting of Stockholders. The Company's Board of Directors approved the granting of 1,082,000 stock options and 314,500 restricted stock units to certain officers and employees on March 11, 2016. The options have an exercise price equal to the closing stock price on March 11, 2016 of $0.33 . The stock options vest over a period of four years and the restricted stock units vest over a period of two years .

Exhibit Index

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	033-17624NY	2.1	1/26/2006	
3.1	Amended and Restated Certificate of Incorporation	8-K	001-35560	3.1	9/24/2013	
3.2	Certificate of Amendment to Amended and Restated Certificate of Incorporation	8-K	001-35560	3.1	11/19/2015	
3.3	Amended and Restated Bylaws	S-8	333-171652	3.1	1/11/2011	
3.4	Amendment to the Amended and Restated Bylaws	8-K	001-35560	3.1	5/25/2012	
4.1	Form of Common Stock Certificate of the Registrant	SB-2	333-140598	4.1	2/12/2007	
4.2	Amended Certificate of Designations of Preferences, Rights and Limitations of Series A Preferred Stock dated May 3, 2010.	S-1	033-150277	3.6	05/12/2010	
4.3	Form of Warrant to Purchase Common Stock, originally issued in February 2011	8-K	033-17264-NY	4.1	2/25/2011	
4.4	Form of Warrant to Purchase Common Stock, originally issued in January 2012	8-K	033-17264-NY	4.1	1/10/2012	
4.5	Form of Warrant to Purchase Common Stock, originally issued in October 2012	8-K	001-35560	10.1	10/19/2012	
4.6	Form of Warrant to Purchase Common Stock, originally issued in February 2015	10-Q	001-35560	4.1	5/11/2015	
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	10.1	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	12/03/2009	
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	05/181/2010	
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.	10-Q	001-35560	10.1	5/11/2015	
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	Office Lease dated July 1, 2012 between Regent Business Centers and ImmunoCellular Therapeutics, Ltd.	10-Q	001-35560	10.1	08/14/2012	
10.37	Form of Warrant issued to participants in the October 18, 2012 underwritten public offering.	8-K	001-35560		10/19/2012	
10.38**	Employment Agreement dated December 3, 2012 between Andrew Gengos and ImmunoCellular Therapeutics, Ltd.	10-K	001-35560	10.54	03/11/2013	
10.39**	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	
10.40	Controlled Equity Offering ^{SM} Sales Agreement dated April 18, 2013 between ImmunoCellular Therapeutics, Ltd. and Cantor Fitzgerald & Co.	8-K	001-35560	10.1	04/18/2013	
10.41**	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	
10.42	Office Lease dated May 13, 2013 between Calabasas/Sorrento Square, LLC and ImmunoCellular Therapeutics, Ltd.	10-Q	001-35560	10.1	08/08/2013	
10.43	Master Services Agreement dated September 1, 2010 between Averion International Corp. and ImmunoCellular Therapeutics, Ltd.	10-Q	001-35560	10.2	08/08/2013	
10.44**	Employment Agreement dated August 19, 2013 between Anthony Gringeri and ImmunoCellular Therapeutics, Ltd.	10-Q	001-35560	10.1	11/07/2013	
10.45†	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	
10.46**	Amended and Restated 2006 Equity Incentive Plan of ImmunoCellular Therapeutics, Ltd.	10-Q	001-35560	10.3	11/07/2013	
10.47**	Amendment No. 1 to Amended and Restated 2006 Equity Incentive Plan of ImmunoCellular Therapeutics, Ltd.	10-Q	001-35560	10.4	11/07/2013	
10.48**	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	

10.49	Master Services Agreement dated February 19, 2014 between Aptiv Solutions, Inc. and ImmunoCellular Therapeutics, Ltd.	10-Q	001-35560	10	03/14/2014	
10.50**	Employment Agreement dated January 30, 2015 between Steven J. Swanson and ImmunoCellular Therapeutics, Ltd.	10-Q	001-35560	10.1	5/11/2015	
10.51†	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	
10.52†	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	
10.53**	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	
10.54†	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	
10.55†	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	
10.56**	Employment Agreement dated September 15, 2015 between David Fractor and ImmunoCellular Therapeutics. Ltd.	10-Q	001-35560	10.2	11/9/2015	
10.57**	Independent Contractor Services Agreement effective as of October 1, 2015 between John Yu and ImmunoCellular Therapeutics, Ltd.					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.

INDEPENDENT CONTRACTOR SERVICES AGREEMENT

This Independent Contractor Services Agreement (the **"Agreement"**) is entered into as of October 1, 2015 (the **"Effective Date"**) between ImmunoCellular Therapeutics, Ltd. (**"Company"**) and John Yu (**"Contractor"**) (each, a **"Party"**).

1. DEFINITIONS. As used in this Agreement:

1.1 "Confidential Information" means any and all information related to the Company's business (including trade secrets, technical information, business forecasts and strategies, marketing plans, supplier lists, personnel information, financial data, and proprietary information of third parties provided to Company in confidence).

1.2 "Intellectual Property" means all concepts, Confidential Information, data, databases, designs, diagrams, documentation, drawings, flow charts, ideas and inventions (whether or not patentable or reduced to practice), know-how, materials, marketing and development plans, marks, methods, models, procedures, processes, protocols, schematics, devices, software code, specifications, techniques, tools, user interfaces, web sites, works of authorship, and other forms of technology.

1.3 "Intellectual Property Rights" means all past, present, and future rights of the following types, which may exist or be created under the laws of any jurisdiction in the world: (a) rights associated with works of authorship; (b) trademark and trade name rights and similar rights; (c) trade secret rights; (d) patent and industrial property rights; (e) other proprietary rights in Intellectual Property of every kind and nature; and (f) rights in or relating to registrations, renewals, extensions, combinations, divisions, and reissues of, and applications for, any of the rights referred to in clauses (a) through (e) of this sentence.

1.4 "Services" means the services to be performed or actually performed by Contractor under this Agreement.

1.5 "Work Product" means (a) all Intellectual Property, in any stage of development, that Contractor conceives, creates, develops, or reduces to practice in connection with performing the Services, and (b) all tangible embodiments (including models, presentations, prototypes, reports, samples, and summaries) of each item of such Intellectual Property.

2. ENGAGEMENT

2.1 Services. Contractor will perform the Services set forth in Exhibit A in accordance with the terms of this Agreement, reporting to Andrew Gengos. Contractor agrees to provide a minimum of thirteen (13) hours of Services per week. Contractor will have exclusive control over the manner and means of performing the Services, and will use Contractor's expertise and creative talents in performing the Services. Contractor may perform the Services at a location of his choosing. Contractor will provide, at Contractor's own expense, all equipment, tools, and other materials necessary to complete the Services; however, to the extent necessary to facilitate performance of

the Services and for no other purpose, Company may, in its discretion, make its equipment available to Contractor at Contractor's request. Insofar as Contractor uses Company's equipment or facilities, Contractor will be solely responsible for any injury or death suffered by Contractor and any damage to any property arising from such use.

2.2 Monitoring. Contractor will cooperate with any requests by Company to monitor the Services in order to verify that such Services are being performed in accordance with this Agreement and in a timely and satisfactory manner, and shall prepare monthly status reports for Company in a form determined by the Company. Contractor will use Contractor's best efforts to facilitate any such monitoring, including providing access to Contractor's equipment and facilities. All documents and materials stored at Company's facilities will be subject to inspection by Company at any time without notice.

2.3 Subcontracting. Contractor will not subcontract or otherwise delegate any of Contractor's obligations under this Agreement without Company's express prior written consent on a case-by-case basis.

2.4 Access Rules; Procedures; Policies. While on Company's premises, Contractor agrees to comply with Company's then-current access rules and procedures, including those procedures pertaining to safety, security, and confidentiality. Contractor agrees and acknowledges that Contractor has no expectation of privacy with respect to Company's telecommunications, networking, or information processing systems (including stored computer files, email messages, and voice messages) and that Contractor's activities, including the sending or receiving of any files or messages, on or using any of those systems may be monitored, and the contents of such files and messages may be reviewed and disclosed, at any time without notice. Contractor shall also be required to acknowledge and abide by Company's insider trading policy.

2.5 Cedars Employment. The Company hereby acknowledges that Contractor is a full-time faculty member of Cedars-Sinai Medical Center (" **Medical Center** ") and is subject to the Medical Center's Patent & Invention Policy, which requires Contractor to assign to the Medical Center any inventions that Contractor may solely or jointly conceive or develop or reduce to practice, or cause to be conceived or developed or reduced to practice, within the scope of Contractor's employment at the Medical Center (" **Medical Center Inventions** "). The Company acknowledges that under the terms of Contractor's employment at the Medical Center, all right, title and interest in and to the Medical Center Inventions vests and shall vest in the Medical Center. Contractor hereby represents that (a) Contractor's independent contractor relationship with the Company is permitted extramural professional activity by the Medical Center, and (b) the scope of Contractor's independent contractor relationship with the Company does not fall within the scope of Contractor's employment at the Medical Center. Contractor agrees that in conducting activities for the Company pursuant to this Agreement, Contractor will not (i) utilize any facilities, personnel or resources of the Medical Center without first notifying the Company and obtaining the Company's prior written consent, and (ii) take any actions to cause any Confidential Information (as defined in Section 1.1) or Work Product (as defined in Section 1.5) to fall within the scope of a Medical Center Invention.

2.6 Competitive Engagements. D uring the Term (as defined below), Contractor shall not engage in any business or activity that directly or indirectly competes with any current or planned business or activity of the Company without prior written approval from the Company.

3. INDEPENDENT CONTRACTOR RELATIONSHIP. Contractor's relation to Company under this Agreement is that of an independent contractor. Nothing in this Agreement is intended or should be construed to create a partnership, joint venture, or employer-employee relationship between Company and Contractor. Contractor will take no position with respect to or on any tax return or application for benefits, or in any proceeding directly or indirectly involving Company, that is inconsistent with Contractor being an independent contractor (and not an employee) of Company. Contractor is not the agent of Company and is not authorized, and must not represent to any third party that Contractor is authorized, to make any commitment or otherwise act on behalf of Company. Without limiting the generality of the foregoing:

3.1 Benefits and Contributions. Contractor is not entitled to or eligible for any benefits that Company may make available to its employees, such as group insurance, profit-sharing, or retirement benefits. Because Contractor is an independent contractor, Company will not withhold or make payments for social security, make unemployment insurance or disability insurance contributions, or obtain workers' compensation insurance on behalf of Contractor. If, notwithstanding the foregoing, Contractor is reclassified as an employee of Company by any federal or state agency as the result of any administrative or judicial proceeding, Contractor agrees that Contractor will not, as the result of such reclassification, be entitled to or eligible for, on either a prospective or a retrospective basis, any employee benefits maintained by Company.

3.2 Taxes. Contractor is solely responsible for filing all tax returns and submitting all payments as required by any federal, state, local, or foreign tax authority arising from the payment of fees to Contractor under this Agreement, and agrees to do so in a timely manner. If applicable, Company will report the fees paid to Contractor under this Agreement by filing Form 1099-MISC with the Internal Revenue Service as required by law.

3.3 Compliance with Law. Contractor will comply with all applicable federal, state, local, and foreign laws governing self-employed individuals, including laws requiring the payment of taxes, such as income and employment taxes, and social security, disability, and other contributions.

4. COMPENSATION

4.1 Fees. Subject to the terms and conditions of this Agreement, Company will pay Contractor a monthly fee of $11,103 (**"Fees"**).

4.2 Equity. Any equity interests granted to Contractor during Contractor's employment with the Company shall continue to vest during the Term (as defined below) pursuant to the terms and conditions applicable to such equity interests.

4.3 Expenses. Except for travel and entertainment expenses that are preapproved by Company in writing, Contractor will be solely responsible for all expenses incurred by Contractor

in connection with performing the Services or otherwise performing Contractor's obligations under this Agreement.

4.4 Invoicing. Payment to Contractor of Fees will be due thirty (30) days following Company's receipt of the invoice for such Fees. Contractor will submit invoices to Company on a monthly basis for Services performed in the previous month.

5. CONFIDENTIALITY

5.1 Use and Disclosure. During the term of this Agreement and at all times thereafter, Contractor will (a) hold all Confidential Information in strict trust and confidence, (b) refrain from using or permitting others to use Confidential Information in any manner or for any purpose not expressly permitted or required by this Agreement, and (c) refrain from disclosing or permitting others to disclose any Confidential Information to any third party without obtaining Company's express prior written consent on a case-by-case basis.

5.2 Exceptions. Contractor's obligations under Sections 5.1 will terminate with respect to any particular information that Contractor can prove, by clear and convincing evidence, (a) Contractor lawfully knew prior to Company's first disclosure to Contractor, (b) a third party rightfully disclosed to Contractor free of any confidentiality duties or obligations, or (c) is, or through no fault of Contractor has become, generally available to the public. Additionally, Contractor will be permitted to disclose Confidential Information to the extent that such disclosure is expressly approved in writing by Company, or is required by law or court order, provided that Contractor immediately notifies Company in writing of such required disclosure and cooperates with Company, at Company's reasonable request and expense, in any lawful action to contest or limit the scope of such required disclosure.

5.3 Return. Upon Company's request and upon any termination or expiration of this Agreement, Contractor will promptly (a) return to Company or, if so directed by Company, destroy all tangible embodiments of the Confidential Information (in every form and medium), (b) permanently erase all electronic files containing or summarizing any Confidential Information, and (c) certify to Company in writing that Contractor has fully complied with the foregoing obligations.

6. NO CONFLICTS. Contractor will refrain from any activity, and will not enter into any agreement or make any commitment that is inconsistent or incompatible with Contractor's obligations under this Agreement, including Contractor's ability to perform the Services. Contractor represents and warrants that, subject to Section 2.5, Contractor is not subject to any contract or duty that would be breached by Contractor's entering into or performing Contractor's obligations under this Agreement or that is otherwise inconsistent with this Agreement. Contractor will not disclose to Company, will not bring into Company's facilities, and will not induce Company to use any confidential or proprietary information of any third party.

7. WORK PRODUCT

7.1 Disclosure of Work Product. Contractor will deliver all Work Product to Company.

7.2 Background and Third-Party Technology. Intellectual Property developed, acquired, or otherwise obtained by Contractor prior to this Agreement or licensed or obtained by Contractor from third parties may not be used by Contractor in the performance of Services unless such Intellectual Property has been specifically identified and described by Contractor to Company.

7.3 Ownership and Assignment of Work Product. Contractor agrees that all Work Product will be the sole and exclusive property of Company. Contractor hereby irrevocably and unconditionally assigns to Company all right, title, and interest worldwide in and to the Work Product and all Intellectual Property Rights thereto. Contractor understands and agrees that Contractor has no right to use the Work Product except as necessary to perform the Services for Company.

7.4 Assignment and Waiver of Other Rights. If any Intellectual Property Rights, including moral rights, in the Work Product, cannot (as a matter of law) be assigned by Contractor to Company as provided in Section 7.3, then (a) Contractor unconditionally and irrevocably waives the enforcement of such rights and all claims and causes of action of any kind against Company with respect to such rights, and (b) to the extent Contractor cannot (as a matter of law) make such waiver, Contractor unconditionally grants to Company an exclusive, perpetual, irrevocable, worldwide, fully-paid license, with the right to sublicense through multiple levels of sublicensees, under any and all such rights (i) to reproduce, create derivative works of, distribute, publicly perform, publicly display, digitally transmit, and otherwise use the Work Product in any medium or format, whether now known or hereafter discovered, (ii) to use, make, have made, sell, offer to sell, import, and otherwise exploit any product or service based on, embodying, incorporating, or derived from the Work Product, and (iii) to exercise any and all other present or future rights in the Work Product.

8. FURTHER ASSURANCES

8.1 Cooperation and Assistance. Contractor will, at Company's request, (a) cooperate with and assist Company, both during and after the term of this Agreement, in perfecting, maintaining, protecting, and enforcing Company's rights in the Work Product, and (b) execute and deliver to Company any documents deemed necessary or appropriate by Company in its discretion to perfect, maintain, protect, or enforce Company's rights in the Work Product or otherwise carry out the purpose of this Agreement. Company will reimburse Contractor for any reasonable out-of-pocket expenses actually incurred by Contractor in fulfilling Contractor's obligations under Section 8.1.

8.2 Power of Attorney. Contractor hereby irrevocably designates and appoints Company and its duly authorized officers and agents as Contractor's agent and attorney-in-fact to act for and in Contractor's behalf to execute, deliver and file any and all documents with the same legal force and effect as if executed by Contractor, if Company is unable for any reason to secure Contractor's signature on any document needed in connection with the actions described in Section 8.1. Contractor acknowledges that this appointment is coupled with an interest.

9. CONTRACTOR REPRESENTATIONS AND WARRANTIES

9.1 General. Contractor represents, warrants, and covenants that:

(a) Contractor will not, in the course of performing the Services, infringe or misappropriate, and neither the Work Product nor any element thereof will infringe or misappropriate, any Intellectual Property Right of any other person;

(b) neither the Work Product nor any element thereof will be subject to any restriction, mortgage, lien, claim, pledge, security interest, or encumbrance when delivered by Contractor to Company;

(c) Contractor will not grant, directly or indirectly, any right or interest in the Work Product to any other person;

(d) Contractor has full right, power, and authority to enter into and perform this Agreement without the consent of any third party, including the right to grant all licenses granted by Contractor in this Agreement;

(e) Contractor will maintain high standards of professionalism, and will comply with all laws, regulations, and ordinances applicable to Contractor's performance of the Services and Contractor's other obligations under this Agreement, including export control laws, and has obtained (or before performing the Services will obtain) all governmental permits and licenses required for Contractor to perform the Services and Contractor's other obligations under this Agreement; and

(f) Should Company permit Contractor to use any of Company's equipment, or facilities during the term of this Agreement, such permission will be gratuitous and Contractor (i) will take all necessary or reasonable precautions to prevent injury to any person (including Company employees) or damage to any property (including Company property) during the term of this Agreement, (ii) will perform all services during Company's normal business hours, unless Company otherwise specifically requests, and (iii) will comply with Company's then-current access policies and procedures, including those pertaining to safety, security, anti-harassment, and confidentiality.

10. INDEMNIFICATION. Contractor will indemnify and hold harmless Company and its affiliates, employees, and agents from and against any and all liabilities, losses, damages, costs, and other expenses (including attorneys' and expert witnesses' costs and fees) arising from or relating to any breach of any representation, warranty, covenant, or obligation of Contractor in this Agreement or any intentional misconduct or negligence by Contractor in performing the Services. In the event of any third-party claim, demand, suit, or action (a **"Claim"**) for which Company (or any of its affiliates, employees, or agents) is or may be entitled to indemnification hereunder,

Company may, at its option, require Contractor to defend such Claim at Contractor's sole expense. Contractor may not agree to settle any such Claim without Company's express prior written consent.

11. NONSOLICITATION. During the term of this Agreement and for twelve (12) months thereafter , Contractor will not directly or indirectly solicit, induce, or attempt to induce any employee or independent contractor to terminate or breach any employment, contractual, or other relationship with Company.

12. LIMITATION OF LIABILITY. IN NO EVENT WILL COMPANY BE LIABLE FOR ANY CONSEQUENTIAL, INDIRECT, EXEMPLARY, SPECIAL, OR INCIDENTAL DAMAGES ARISING FROM OR RELATING TO THIS AGREEMENT. COMPANY'S TOTAL CUMULATIVE LIABILITY IN CONNECTION WITH THIS AGREEMENT, WHETHER IN CONTRACT OR TORT OR OTHERWISE, WILL NOT EXCEED THE AGGREGATE AMOUNT OF FEES OWED BY COMPANY TO CONTRACTOR FOR SERVICES PERFORMED UNDER THIS AGREEMENT.

13. TERM; TERMINATION

13.1 Term. Subject to the termination provision set forth in Section 13.2, the term of this Agreement (the **"Term"**) shall be from the Effective Date through December 31, 2015.

13.2 Termination. Either Party may terminate this Agreement at any time with or without cause for convenience, effective upon thirty (30) days notice to the other Party. In addition, either Party may terminate this Agreement immediately upon written notice to the other Party upon a material breach of this Agreement.

13.3 Survival. Sections 1 (Definitions), 3 (Independent Contractor Relationship), 5 (Confidentiality), 7 (Work Product), 8 (Further Assurances), 9 (Contractor Representations and Warranties), 10 (Indemnification), 11 (Nonsolicitation) (to the extent provided therein), 12 (Limitation of Liability), and 14 (General Provisions) will survive any termination or expiration of this Agreement. Termination or expiration of this Agreement will not affect either Party's liability for any breach of this Agreement such Party may have committed before such expiration or termination.

14. GENERAL PROVISIONS

14.1 Governing Law. This Agreement is governed by the laws of the State of California without reference to any conflict of laws principles that would require the application of the laws of any other jurisdiction.

14.2 Severability. If any provision of this Agreement is, for any reason, held to be invalid or unenforceable, the other provisions of this Agreement will be unimpaired and the invalid or unenforceable provision will be deemed modified so that it is valid and enforceable to the maximum extent permitted by law.

14.3 No Assignment. This Agreement and Contractor's rights and obligations under this Agreement may not be assigned, delegated, or otherwise transferred, in whole or in part, by operation of law or otherwise, by Contractor without Company's express prior written consent. Any attempted assignment, delegation, or transfer in violation of the foregoing will be null and void. Company may assign this Agreement, or any of its rights under this Agreement to any third party with or without Contractor's consent.

14.4 Notices. Each Party must deliver all notices, consents, and approvals required or permitted under this Agreement in writing to the other Party at the address listed on the signature page by courier, by certified or registered mail (postage prepaid and return receipt requested), or by a nationally-recognized overnight carrier. Notice will be effective upon receipt or refusal of delivery. Each Party may change such Party's address for receipt of notice by giving notice of such change to the other Party.

14.5 Remedies. Company's remedies for any breach of this Agreement by Contractor will include damages, injunctive relief, specific performance, and restitution. Contractor acknowledges that any breach of this Agreement by Contractor would cause irreparable injury to Company for which monetary damages would not be an adequate remedy and, therefore, Company will be entitled to injunctive relief (including specific performance). The rights and remedies provided to each Party in this Agreement are cumulative and in addition to any other rights and remedies available to such Party at law or in equity.

14.6 Waiver. All waivers must be in writing and signed by the Party to be charged. Any waiver or failure to enforce any provision of this Agreement on one occasion will not be deemed a waiver of any other provision or of such provision on any other occasion.

14.7 Entire Agreement; Amendments. This Agreement is the final, complete, and exclusive agreement of the Parties with respect to the subject matter hereof and supersedes and merges all prior or contemporaneous communications and understandings between the Parties. No modification of or amendment to this Agreement will be effective unless in writing and signed by the Party to be charged.

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the Effective Date.

COMPANY	**CONTRACTOR**
Signed: /s/ Andrew Gengos	Signed: /s/ John S. Yu
Name: Andrew Gengos	Name: John S. Yu
Title: President and CEO	Title: __
Address: 23622 Calabasas Rd., Suite 300 Calabasas, CA 91302	Address: 269 Ashdale Pl. Los Angeles, CA 90049

EXHIBIT A

DESCRIPTION OF SERVICES

This Exhibit A is incorporated into the Independent Contractor Services Agreement dated by and between ImmunoCellular Therapeutics, Ltd. and John Yu (the **"Agreement"**) and describes Services to be performed by Contractor pursuant to the Agreement.

Scope of Services:

- **a.** Support the execution of the ICT-107 phase 3 trial
- **b.** Support the evaluation and acquisition of outside technology

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 Forms S-3 (File No. 333-208788) and S-8 (File Nos. 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 30, 2016, with respect to our audits of the consolidated financial statements of ImmunoCellular Therapeutics, Ltd. as of December 31, 2015 and 2014 and for each of the three years in the period ended December 31, 2015, which report is included in this Annual Report on Form 10-K of ImmunoCellular Therapeutics, Ltd. for the year ended December 31, 2015.

/s/ Marcum LLP

Marcum LLP
Los Angeles, CA
March 30, 2016

Exhibit 31.1

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

I, Andrew Gengos, 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 30, 2016

By: /s/ Andrew Gengos

Name: Andrew Gengos

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 30, 2016

By: /s/ David Fractor

Name: David Fractor

Title: Principal Financial and Accounting 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, 2015 (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 30, 2016

By: /s/ Andrew Gengos

Name: Andrew Gengos

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, 2015 (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 30, 2016

By: /s/ David Fractor

Name: David Fractor

Title: Principal Financial and Accounting 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."