

As filed with the Securities and Exchange Commission on February 15, 2018.

Registration No. 333-216610

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

**POST-EFFECTIVE AMENDMENT NO. 1 TO
FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933**

Oncobiologics, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

2836
(Primary Standard Industrial
Classification Code Number)

38-3982704
(I.R.S. Employer
Identification Number)

**7 Clarke Drive
Cranbury, New Jersey 08512
(609) 619-3990**

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

**Lawrence A. Kenyon
Chief Financial Officer
Oncobiologics, Inc.
7 Clarke Drive
Cranbury, New Jersey 08512
(609) 619-3990**

(Name, address, including zip code, and telephone number, including area code, of agent for service)

**Copies to:
Yvan-Claude J. Pierre
Marianne C. Sarrazin
Cooley LLP
1114 Avenue of the Americas
New York, New York 10036
(212) 479-6000**

Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this Registration Statement.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box.

If this form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

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

Large accelerated filer Accelerated filer Non-accelerated filer Smaller reporting company
(Do not check if a smaller reporting company) Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided to Section 7(a)(2)(B) of the Securities Act.

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until the Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

EXPLANATORY NOTE

This Post-Effective Amendment No. 1 (this "Post-Effective Amendment") to the Registration Statement on Form S-1 (333-216610) (the "Registration Statement"), as declared effective by the Securities and Exchange Commission (the "SEC") on March 22, 2017, is being filed to update certain disclosures in the Registration Statement and the prospectus contained therein to, among other things, include the information contained in the Company's Annual Report on Form 10-K (the "Annual Report") for the fiscal year ended September 30, 2017 that was filed with the SEC on December 29, 2017, and to make certain other updates contained herein. No additional securities are being registered under this Post-Effective Amendment. Accordingly, this Post-Effective Amendment concerns only the sale or other disposition from time to time by the selling stockholder of up to 5,114,747 shares of common stock registered under the Registration Statement. All applicable registration fees were paid at the time of the original filing of the Registration Statement.

The information in this preliminary prospectus is not complete and may be changed. These securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell nor does it seek an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

PRELIMINARY PROSPECTUS

SUBJECT TO COMPLETION
DATED FEBRUARY 15, 2018

5,114,747 Shares of Common Stock



This prospectus relates to the sale or other disposition from time to time of up to 5,114,747 shares of our common stock, \$0.01 par value per share, issued and issuable to Lincoln Park Capital Fund, LLC, the selling stockholder named in this prospectus, also referred to as Lincoln Park. We are not selling any shares of common stock under this prospectus and will not receive any of the proceeds from the sale of shares of common stock by the selling stockholder.

The shares of common stock being offered by the selling stockholder have been or may be issued pursuant to the purchase agreement dated March 8, 2017 that we entered into with Lincoln Park, which we refer to in this prospectus as the Purchase Agreement. Please refer to the section of this prospectus titled "The Lincoln Park Transaction" for a description of the Purchase Agreement and the section titled "Selling Stockholder" for additional information regarding Lincoln Park.

The selling stockholder may sell or otherwise dispose of the shares of common stock covered by this prospectus in a number of different ways and at varying prices. The prices at which Lincoln Park may sell the shares will be determined by prevailing market prices for the shares or in negotiated transactions. We provide more information about how the selling stockholder may sell or otherwise dispose of their shares of common stock in the section titled "Plan of Distribution." The selling stockholder will pay all brokerage fees and commissions and similar expenses. We will pay all expenses (except brokerage fees and commissions and similar expenses) relating to the registration of the shares with the Securities and Exchange Commission.

We may amend or supplement this prospectus from time to time by filing amendments or supplements as required. You should read the entire prospectus and any amendments or supplements carefully before you make your investment decision.

Our common stock is currently traded on the Nasdaq Capital Market under the symbol "ONS." On February 13, 2018, the closing sale price of our common stock on the Nasdaq Global Market was \$1.15 per share. Effective February 15, 2018, we transferred the listing of our securities to the Nasdaq Capital Market. You are urged to obtain current market quotations for the common stock.

Lincoln Park is an underwriter within the meaning of Section 2(a)(11) of the Securities Act of 1933, as amended.

We are an "emerging growth company" under the federal securities laws and are subject to reduced public company reporting requirements for this prospectus and future filings.

Investing in our securities involves a high degree of risk. See "Risk Factors" beginning on page 5.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

Prospectus dated _____, 2018

TABLE OF CONTENTS	Page
Prospectus Summary	1
The Offering	2
Risk Factors	5
Special Note Regarding Forward-Looking Statements	6
Market and Industry Data	7
The Lincoln Park Transaction	8
Use of Proceeds	12
Price Range of Securities	13
Dividend Policy	14
Selling Stockholder	15
Plan of Distribution	16
Description of Securities	18
Legal Matters	23
Experts	23
Where You Can Find Additional Information	23
Incorporation by Reference	23

We are responsible for the information contained in or incorporated by reference in this prospectus. We have not authorized anyone to provide you with different information, and we take no responsibility for any other information others may give you. We are not, and the selling stockholder is not, making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should not assume that the information contained in this prospectus is accurate as of any date other than the date on the cover of this prospectus, or that any information we have incorporated by reference is accurate other than as of the date of the document incorporated by reference, regardless of the time of delivery of this prospectus or any sale of our common stock.

Persons who come into possession of this prospectus in jurisdictions outside the United States are required to inform themselves about and to observe any restrictions as to this offering and the distribution of this prospectus applicable to that jurisdiction.

Our name "Oncobiologics," the Oncobiologics logo and other trademarks or service marks of Oncobiologics, Inc. appearing in this prospectus are the property of Oncobiologics, Inc. Other trademarks, service marks or trade names appearing in this prospectus are the property of their respective owners. We do not intend our use or display of other companies' trade names, trademarks or service marks to imply a relationship with, or endorsement or sponsorship of us by, these other companies.

Convenience translations between Swiss Francs, or CHF, and U.S. dollars provided herein are based on the noon buying rate in New York City for cable transfers in foreign currencies as certified for customs purposes by the Federal Reserve Bank of New York on September 29, 2017, or CHF 0.9688 = \$1.00. We do not represent that CHF were, could have been, or could be, converted into U.S. dollars at such rate or at any other rate.

PROSPECTUS SUMMARY

This summary highlights information contained elsewhere in this prospectus. This summary provides an overview of selected information and does not contain all of the information you should consider before investing in our securities. You should read this entire prospectus carefully, especially the section titled "Risk Factors" and our consolidated financial statements and related notes included elsewhere in this prospectus, before making an investment decision. Except as otherwise indicated or unless the context otherwise requires, references to "company," "we," "us," "our" or "Oncobiologics," refer to Oncobiologics, Inc. and its consolidated subsidiary.

Overview

We are a clinical-stage biopharmaceutical company focused on identifying, developing, manufacturing and commercializing complex biosimilar therapeutics. Our current focus is on technically challenging and commercially attractive monoclonal antibodies, or mAbs, in the disease areas of immunology and oncology. A mAb is a type of protein that is produced by a single clone of cells or cell line and made to bind to a specific substance in the body. Our strategy is to cost-effectively develop these biosimilars on an accelerated timeline, which is fundamental to our success and we believe positions us to be a leading biosimilar company. We have leveraged our team's biopharmaceutical expertise to establish fully integrated in-house development and manufacturing capabilities, which we refer to as our BioSymphony Platform. We believe this platform addresses the numerous complex technical and regulatory challenges in developing and commercializing mAb biosimilars and has been designed to provide significant pricing flexibility. We have identified a pipeline of biosimilar product candidates for further development and have advanced two of these product candidates through Phase 1 clinical trials and into preparations for Phase 3 clinical trials: ONS-3010, a biosimilar to adalimumab (Humira[®]), and ONS-1045, a biosimilar to bevacizumab (Avastin[®]).

Implications of Being an Emerging Growth Company

As a company with less than \$1.07 billion in revenues during our last fiscal year, we are an "emerging growth company" as defined in the Jumpstart Our Business Startups Act, or the JOBS Act, enacted in April 2012, and therefore we intend to take advantage of certain exemptions from various public company reporting requirements, including not being required to have our internal control over financial reporting audited by our independent registered public accounting firm pursuant to Section 404(b) of the Sarbanes-Oxley Act of 2002, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and any golden parachute payments not previously approved. We may take advantage of these exemptions for up to five years from our initial public offering or until we are no longer an "emerging growth company." We would cease to be an "emerging growth company" if we have more than \$1.07 billion in annual revenues, have more than \$700 million in market value of our common stock held by non-affiliates as of the last day of our second fiscal quarter or issue more than \$1.0 billion of non-convertible debt over a three-year period. We may choose to take advantage of some, but not all, of the available benefits under the JOBS Act. We have taken advantage of some reduced reporting burdens in this prospectus. Accordingly, the information contained herein may be different than the information you receive from other public companies in which you hold securities.

In addition, the JOBS Act provides that an "emerging growth company" can take advantage of an extended transition period for complying with new or revised accounting standards. This provision allows an emerging growth company to delay the adoption of some accounting standards until those standards would otherwise apply to private companies. We have irrevocably elected not to avail ourselves of delayed adoption of new or revised accounting standards and, therefore, we will be subject to the same requirements to adopt new or revised accounting standards as other public companies that are not "emerging growth companies."

Corporate Information

We initially incorporated in January 2010 in New Jersey as Oncobiologics, Inc., and in October 2015, we reincorporated in Delaware by merging with and into a Delaware corporation. Our headquarters are located at 7 Clarke Drive, Cranbury, New Jersey, 08512, and our telephone number at that location is (609) 619-3990. Our website address is www.oncobiologics.com. The information contained on, or that can be accessed through, our website is not part of, and is not incorporated by reference into this prospectus and should not be considered to be part of this prospectus.

THE OFFERING

This prospectus relates to the resale by Lincoln Park Capital Fund, LLC, the selling stockholder identified in this prospectus, of up to 5,114,747 shares of our common stock, as follows:

- 150,376 shares of common stock we sold to Lincoln Park on March 8, 2017 upon our entry into the Purchase Agreement with Lincoln Park, for a total purchase price of \$400,000, as the initial purchase under the Purchase Agreement, and which we refer to in this prospectus as the Initial Purchase;
- 113,205 shares of common stock issued to Lincoln Park on March 8, 2017 upon our entry into the Purchase Agreement with Lincoln Park, as an initial commitment fee;
- up to 4,737,960 shares of common stock that we may, from time to time after the date of this prospectus, issue and sell to Lincoln Park pursuant to the Purchase Agreement; and
- up to 113,206 shares of common stock that we will issue proportionally to Lincoln Park as an additional commitment fee, if and when we sell additional shares to Lincoln Park pursuant to the Purchase Agreement after the date of this prospectus.

Common stock offered by the selling stockholder	5,114,747 shares
Common stock outstanding before the offering ⁽¹⁾	25,530,727 shares
Common stock to be outstanding after the offering ⁽²⁾	30,645,474 shares
Nasdaq Capital Market Symbol	Our common stock is listed under the symbol "ONS"

(1) Based on the number of shares outstanding as of December 27, 2017.

(2) Assumes the issuance of all of the shares that may be issued after the date of this prospectus under the Purchase Agreement that are being offered by this prospectus.

On March 8, 2017, we entered into the Purchase Agreement, together with a registration rights agreement dated March 8, 2017, which we refer to in this prospectus as the Registration Rights Agreement, with Lincoln Park. Pursuant to the terms of the Purchase Agreement, Lincoln Park has agreed to purchase from us up to \$15.4 million of our common stock (subject to certain limitations) from time to time during the term of the Purchase Agreement. Pursuant to the terms of the Registration Rights Agreement, we have filed with the SEC the registration statement that includes this prospectus to register for resale under the Securities Act of 1933, as amended, or the Securities Act, the shares of our common stock that have been or may be issued to Lincoln Park under the Purchase Agreement.

Concurrently with the execution of the Purchase Agreement on March 8, 2017, we issued and sold to Lincoln Park 150,376 shares of our common stock as the Initial Purchase under the Purchase Agreement, at a price of \$2.66 per share, for a total purchase price of \$400,000, and we issued to Lincoln Park 113,205 shares of our common stock as an initial fee for its commitment to purchase additional shares of our common stock under the Purchase Agreement.

Other than the shares of our common stock that we have already issued and sold to Lincoln Park as described above, we do not have the right to commence any further sales to Lincoln Park under the Purchase Agreement until the registration statement, of which this prospectus is a part, is declared effective by the SEC and the other conditions set forth in the Purchase Agreement are satisfied. Thereafter, under the terms and subject to the conditions of the Purchase Agreement, we have the right to sell to Lincoln Park and Lincoln Park is obligated to purchase up to an additional \$15.0 million of our common stock, subject to certain limitations, from time to time, over a 30-month period. We may direct Lincoln Park, in our sole discretion and subject to certain conditions, to purchase up to 30,000 shares of our common stock on any business day that the closing sale price of our common stock is not below \$1.50, subject to adjustment as provided in the Purchase Agreement, which purchases we refer to in this prospectus as Regular Purchases, provided that at least one business day has passed since the most recent Regular Purchase was completed. The amount of shares we may sell to Lincoln Park under a single Regular Purchase may increase under certain circumstances as described in the Purchase Agreement, but in no event will the dollar amount of a single Regular Purchase exceed \$1.0 million. The purchase price of shares of our common stock related to the Regular Purchases will be based on the prevailing market prices of such shares at the time of sales as computed under the Purchase Agreement, without any fixed discount. In addition, under certain circumstances set forth in the

Purchase Agreement, we may direct Lincoln Park to purchase other amounts as “accelerated purchases” and “additional purchases” when our closing sale price is not less than \$3.00 per share, subject to adjustment as provided in the Purchase Agreement.

For each purchase of our common stock by Lincoln Park under the Purchase Agreement from and after the date of this prospectus, we will issue to Lincoln Park additional shares of our common stock in commensurate amounts, up to a total of 113,206 shares, as an additional commitment fee based upon the relative proportion of the aggregate amount of \$15.0 million of additional shares of our common stock that may be purchased by Lincoln Park under the Purchase Agreement. For example, if we elect, at our sole discretion, to require Lincoln Park to purchase \$100,000 of our common stock, then we would at that time issue to Lincoln Park 755 additional commitment shares, which is calculated by multiplying (i) the quotient of (A) \$100,000 (the amount we have elected to sell to Lincoln Park) divided by (B) \$15.0 million (the remaining aggregate amount we can sell to Lincoln Park under the Purchase Agreement), by (ii) 113,206 (the total number of additional commitment shares we may be required to issue to Lincoln Park under the Purchase Agreement). The additional commitment shares will only be issued pursuant to this formula as and when we elect at our discretion, from and after the date of this prospectus, to sell shares of our common stock to Lincoln Park under the Purchase Agreement.

Our sales of shares of common stock to Lincoln Park under the Purchase Agreement are limited to the number of shares that would result in the beneficial ownership by Lincoln Park and its affiliates, at any single point in time, of no more than 4.99% of the outstanding shares of our common stock. Under the rules of the Nasdaq, in no event may we issue under the Purchase Agreement more than 19.99% of our shares outstanding immediately prior to the time of the signing of the Purchase Agreement (which is approximately 4,729,584 shares based on 23,659,753 shares outstanding immediately prior to the time of the signing of the Purchase Agreement, and which we refer to as the Exchange Cap), unless we obtain stockholder approval or an exception pursuant to the rules of the Nasdaq is obtained to issue more than 19.99%. This limitation will not apply if, at any time the Exchange Cap is reached and at all times thereafter, the average price paid for all shares issued and sold under the Purchase Agreement is equal to or greater than \$2.783, which was the consolidated closing bid price of our common stock on March 7, 2017 plus an increment for the commitment shares we issued and may issue to Lincoln Park. We are not required or permitted to issue any shares of common stock under the Purchase Agreement if such issuance would breach our obligations under the rules or regulations of the Nasdaq.

We have the right to terminate the Purchase Agreement at any time, at no cost or penalty. Future sales of common stock to Lincoln Park under the Purchase Agreement will depend on a variety of factors to be determined by us from time to time, including, among others, market conditions, the trading price of the common stock and determinations by us as to the appropriate sources of funding for us and our operations. Lincoln Park has no right to require any sales by us, but is obligated to make purchases from us as we direct in accordance with the Purchase Agreement. Lincoln Park has covenanted not to cause or engage in any manner whatsoever, any direct or indirect short selling or hedging of our shares. Lincoln Park may not assign or transfer its rights and obligations under the Purchase Agreement.

For a more detailed description of the Purchase Agreement, see “The Lincoln Park Transaction.” The net proceeds under the Purchase Agreement to us will depend on the frequency and prices at which we sell shares of our stock to Lincoln Park. We expect that any proceeds received by us from such sales to Lincoln Park under the Purchase Agreement will be used for working capital and general corporate purposes.

We do not know what the purchase price for our common stock will be, except for the shares of common stock sold to Lincoln Park in the Initial Purchase, and therefore cannot be certain as to the number of shares we might issue to Lincoln Park after the date of this prospectus under the Purchase Agreement. A total of 5,114,747 shares of our common stock are being offered under this prospectus, which may be less than the amount of shares issuable under the Purchase Agreement. As of March 8, 2017, there were 23,659,753 shares of our common stock outstanding, of which 15,344,274 shares were held by non-affiliates, excluding the aggregate of 263,581 shares that we have already issued to Lincoln Park under the Purchase Agreement. If all of the 5,114,747 shares offered by Lincoln Park under this prospectus were issued and outstanding as of March 8, 2017, such shares would represent approximately 17.8% of the total number of shares of our common stock outstanding and approximately 33.3 % of the total number of outstanding shares held by non-affiliates, in each case as of March 8, 2017; however, these percentages do not give effect to the prohibition contained in the Purchase Agreement that prevents us from selling and issuing to Lincoln Park shares such that, after giving effect to such sale and issuance, Lincoln Park and its affiliates would

beneficially own, at any single point in time, more than 4.99% of the outstanding shares of our common stock. If we elect to issue and sell more than the 5,114,747 shares issuable to and offered under this prospectus to Lincoln Park, which we have the right, but not the obligation, to do, we must first register for resale under the Securities Act any such additional shares, which could cause additional substantial dilution to our stockholders. The number of shares ultimately offered for resale by Lincoln Park is dependent upon the number of shares we issue and sell to Lincoln Park under the Purchase Agreement.

Issuances of our common stock in this offering will not affect the rights or privileges of our existing stockholders, except that the economic and voting interests of each of our existing stockholders will be diluted as a result of any such issuance. Although the number of shares of common stock that our existing stockholders own will not decrease, the shares owned by our existing stockholders will represent a smaller percentage of our total outstanding shares after any such issuance to Lincoln Park.

RISK FACTORS

An investment in our common stock involves a high degree of risk. Before deciding whether to invest in our common stock, you should consider carefully the risks and uncertainties discussed under the heading “Risk Factors” contained in our annual report on Form 10-K for the year ended September 30, 2017 filed with the SEC on December 29, 2017 and incorporated by reference in this prospectus, as the same may be amended, supplemented or superseded by the risks and uncertainties described under similar headings in the other documents that are filed after the date hereof and incorporated by reference into this prospectus. Additional risks not presently known to us or that we currently believe are immaterial may also significantly impair our business operations. Please also read carefully the section below entitled “Special Note Regarding Forward-Looking Statements.”

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated by reference herein contain forward-looking statements about us and our industry that involve substantial risks and uncertainties. All statements other than statements of historical facts contained in this prospectus and the documents incorporated by reference herein, including statements regarding our future financial condition, business strategy and plans, and objectives of management for future operations, are forward-looking statements. In some cases, you can identify forward-looking statements by terminology such as “aim,” “anticipate,” “assume,” “believe,” “contemplate,” “continue,” “could,” “design,” “due,” “estimate,” “expect,” “goal,” “intend,” “may,” “objective,” “plan,” “predict,” “positioned,” “potential,” “seek,” “should,” “target,” “will,” “would” and other similar expressions that are predictions of or indicate future events and future trends, or the negative of these terms or other comparable terminology.

We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends that we believe may affect our financial condition, results of operations, business strategy and financial needs. These forward-looking statements are subject to a number of known and unknown risks, uncertainties and assumptions, including risks described in the section titled “Risk Factors” contained in our annual report on form 10-K for the year ended September 30, 2017 filed with the SEC on December 29, 2017 and incorporated by reference in this prospectus, regarding, among other things:

- our ability to successfully partner our lead biosimilar product candidate assets or expand our business to provide contract development and manufacturing services;
- the timing and the success of the design of the clinical trials and planned clinical trials of ONS-3010 and ONS-1045;
- whether the results of our clinical trials will be sufficient to support domestic or global regulatory approvals;
- our ability to obtain and maintain regulatory approval of our current and future biosimilar product candidates;
- our expectations regarding the potential market size and the size of the patient populations for our biosimilar product candidates, if approved, for commercial use;
- our ability to fund our working capital requirements;
- the implementation of our business model and strategic plans for our business and biosimilar product candidates;
- the initiation, timing, progress and results of future preclinical studies and clinical trials and our research and development programs;
- developments or disputes concerning our intellectual property or other proprietary rights;
- our ability to maintain and establish collaborations or obtain additional funding;
- the rate and degree of market acceptance of our current and future biosimilar product candidates;
- our expectations regarding government and third-party payor coverage and reimbursement;
- our ability to compete in the markets we serve; and
- the factors that may impact our financial results.

These risks are not exhaustive. Other sections of this prospectus or the documents incorporated by reference herein may include additional factors that could harm our business and financial performance. Moreover, we operate in a very competitive and rapidly changing environment. New risk factors emerge from time to time, and it is not possible for our management to predict all risk factors, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in, or implied by, any forward-looking statements.

You should not rely upon forward-looking statements as predictions of future events. We cannot assure you that the events and circumstances reflected in the forward-looking statements will be achieved or occur. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements. Except as required by law, we undertake no obligation to update publicly any forward-looking statements for any reason after the date of this prospectus or to conform these statements to actual results or to changes in our expectations.

You should carefully read this prospectus, together with the information incorporated herein by reference as described under the heading “Incorporation by Reference,” and the documents that we reference in this prospectus and have filed as exhibits to the registration statement of which this prospectus is a part with the understanding that our actual future results, levels of activity, performance and achievements may be materially different from what we expect. We qualify all of our forward-looking statements by these cautionary statements.

MARKET AND INDUSTRY DATA

Unless otherwise indicated, information contained or incorporated by reference in this prospectus concerning our industry and the market in which we operate, including our general expectations and market position, market opportunity and market size, is based on information from various sources including the independent industry publication set forth below and is subject to a number of assumptions and limitations. Although we are responsible for all of the disclosure contained or incorporated by reference in this prospectus and we believe the information from the industry publication and other third-party sources included or incorporated by reference in this prospectus is reliable, such information is inherently imprecise. The industry in which we operate is subject to a high degree of uncertainty and risk due to a variety of factors, including those described in the section titled "Risk Factors." These and other factors could cause results to differ materially from those expressed in the estimates made by the independent parties and by us.

THE LINCOLN PARK TRANSACTION

General

On March 8, 2017, we entered into the Purchase Agreement and the Registration Rights Agreement with Lincoln Park. Pursuant to the terms of the Purchase Agreement, Lincoln Park has agreed to purchase from us up to \$15.4 million of our common stock (subject to certain limitations) from time to time during the term of the Purchase Agreement. Pursuant to the terms of the Registration Rights Agreement, we have filed with the SEC the registration statement that includes this prospectus to register for resale under the Securities Act the shares that have been or may be issued to Lincoln Park under the Purchase Agreement.

Concurrently with the execution of the Purchase Agreement on March 8, 2017, we issued and sold to Lincoln Park 150,376 shares of our common stock in the Initial Purchase under the Purchase Agreement, at a price of \$2.66 per share, for a total purchase price of \$400,000, and we issued to Lincoln Park 113,205 shares of our common stock as an initial commitment fee. Other than the shares of our common stock that we have already issued to Lincoln Park as described above, we do not have the right to commence any further sales to Lincoln Park under the Purchase Agreement until the SEC has declared effective the registration statement of which this prospectus forms a part and the other conditions to the commencement of such sales set forth in the Purchase Agreement are satisfied.

Thereafter, under the terms and subject to the conditions of the Purchase Agreement, we have the right to sell to Lincoln Park, and Lincoln Park is obligated to purchase, up to \$15.0 million of shares of our common stock (in addition to the shares sold to Lincoln Park in the Initial Purchase), subject to certain limitations, from time to time, over a 30-month period. We may direct Lincoln Park, in our sole discretion and subject to certain conditions, to purchase up to 30,000 shares of our common stock in a Regular Purchase on any business day that the closing sale price of our common stock is not below \$1.50, subject to adjustment as provided in the Purchase Agreement, at a purchase price per share based on the prevailing market price of our common stock preceding the time of sale as computed under the Purchase Agreement without any fixed discount, provided that at least one business day has passed since the most recent Regular Purchase was completed. The amount of shares we may sell to Lincoln Park under a single Regular Purchase may be increased under certain circumstances as described in the Purchase Agreement, but in no event will the dollar amount of a single Regular Purchase exceed \$1.0 million. In addition, under certain circumstances set forth in the Purchase Agreement, we may direct Lincoln Park to purchase other amounts as "accelerated purchases" and "additional purchases" as described below when our closing sale price is not less than \$3.00 per share, subject to adjustment as provided in the Purchase Agreement. For each purchase of our common stock by Lincoln Park under the Purchase Agreement from and after the date of this prospectus, we will issue to Lincoln Park additional shares of our common stock in commensurate amounts, up to a total of 113,206 shares, as an additional commitment fee based upon the relative proportion of the aggregate amount of \$15.0 million of shares of our common stock that may be purchased by Lincoln Park.

Purchase of Shares Under the Purchase Agreement

Under the Purchase Agreement, on any business day selected by us that the closing sale price of our common stock is not below \$1.50, subject to adjustment as provided in the Purchase Agreement, we may direct Lincoln Park, in our sole discretion and subject to certain conditions, to purchase up to 30,000 shares of our common stock in a Regular Purchase. If the closing sale price of our common stock is not below \$4.00 per share on the applicable purchase date, then the Regular Purchase amount may be increased to a maximum of 45,000 shares. If the closing sale price is not below \$5.00 per share on the applicable purchase date, then the Regular Purchase amount may be increased to a maximum of 60,000 shares. If the closing sale price is not below \$6.00 per share on the applicable purchase date, then the Regular Purchase amount may be increased to a maximum of 80,000 shares. Although there are no upper limits on the per share price Lincoln Park may pay to purchase our common stock, we may not sell more than \$1.0 million in shares of common stock to Lincoln Park per any individual Regular Purchase. The purchase price per share to be sold to Lincoln Park in each such Regular Purchase will be equal to the lower of:

- the lowest sale price for our common stock on the purchase date for such shares; and
- the arithmetic average of the three lowest closing sale prices for our common stock during the 10 consecutive business days ending on the business day immediately preceding the purchase date for such shares.

In addition to Regular Purchases described above, we may also direct Lincoln Park, on any business day on which we have properly submitted a Regular Purchase notice and the closing sale price of our common stock is not below \$3.00 per share, subject to adjustment as provided in the Purchase Agreement, to purchase an additional amount of our common stock, which we refer to as an Accelerated Purchase, not to exceed the lesser of:

- 25% of the aggregate shares of our common stock traded during normal trading hours on the purchase date; and
- four times the number of purchase shares purchased pursuant to the corresponding Regular Purchase.

The purchase price per share for each such Accelerated Purchase will be equal to the lower of:

- 96% of the volume weighted average price during (i) the entire trading day on the purchase date, if the volume of shares of our common stock traded on the purchase date has not exceeded a volume maximum calculated in accordance with the Purchase Agreement, or (ii) the portion of the trading day of the purchase date (calculated starting at the beginning of normal trading hours) until such time at which the volume of shares of our common stock traded has exceeded such volume maximum; and
- the closing sale price of our common stock on the purchase date.

In addition to Regular Purchases and Accelerated Purchases described above, from and after the date that is 30 business days after the date that we may commence Regular Purchases under the Purchase Agreement, we may also direct Lincoln Park, on any business day that the closing sale price of our common stock is not below \$3.00, subject to adjustment as provided in the Purchase Agreement, to purchase additional amounts of our common stock, which we refer to as an Additional Purchase, provided, however, that (i) Lincoln Park's total committed obligation under any single Additional Purchase shall not exceed \$400,000, (ii) we may not deliver to Lincoln Park more than three separate Additional Purchase notices, (iii) at least 30 business days must pass between the Company's delivery of an Additional Purchase notice to Lincoln Park and the completion of the prior Additional Purchase and (iv) Lincoln Park's total committed obligation under all three Additional Purchases shall not exceed \$1,200,000 in the aggregate. The purchase price for each such Additional Purchase shall be equal to the lower of (i) \$6.00 per share and (ii) 96% of the purchase price that would be applicable to a Regular Purchase on the purchase date for the Additional Purchase.

In the case of Regular Purchases, Accelerated Purchases and Additional Purchases, the purchase price per share will be equitably adjusted for any reorganization, recapitalization, non-cash dividend, stock split, reverse stock split or other similar transaction occurring during the business days used to compute the purchase price.

Other than as set forth above, there are no trading volume requirements or restrictions under the Purchase Agreement, and we will control the timing and amount of any sales of our common stock to Lincoln Park.

Our sales of shares of common stock to Lincoln Park under the Purchase Agreement are limited to the number of shares that would result in the beneficial ownership by Lincoln Park and its affiliates, at any single point in time, of no more than 4.99% of the outstanding shares of our common stock. Under the rules of the Nasdaq, in no event may we issue under the Purchase Agreement more than 19.99% of our shares outstanding immediately prior to the time of the signing of the Purchase Agreement (which is approximately 4,729,584 shares based on 23,659,753 shares outstanding immediately prior to the time of the signing of the Purchase Agreement), unless we obtain stockholder approval or an exception pursuant to the rules of the Nasdaq is obtained to issue more than 19.99%. This limitation will not apply if, at any time the Exchange Cap is reached and at all times thereafter, the average price paid for all shares issued and sold under the Purchase Agreement is equal to or greater than \$2.783, which was the consolidated closing bid price of our common stock on March 7, 2017 plus an increment for the commitment shares we issued and may issue to Lincoln Park. We are not required or permitted to issue any shares of common stock under the Purchase Agreement if such issuance would breach our obligations under the rules or regulations of the Nasdaq.

Floor Price

Under the Purchase Agreement, in no event may we deliver a Regular Purchase notice to Lincoln Park under the Purchase Agreement on any business day that the closing sale price of our common stock is less than \$1.50 per share, which will be appropriately adjusted as provided in the Purchase Agreement for any reorganization, recapitalization, non-cash dividend, stock split or other similar transaction. Furthermore, in no event may we deliver an Accelerated Purchase notice or an Additional Purchase notice to Lincoln Park under the Purchase Agreement if the closing sale price of our common stock on the applicable date is less than \$3.00 per share, which will be appropriately adjusted as provided in the Purchase Agreement for any reorganization, recapitalization, non-cash dividend, stock split or other similar transaction.

Events of Default

Events of default under the Purchase Agreement include the following:

- the effectiveness of the registration statement of which this prospectus forms a part lapses for any reason (including, without limitation, the issuance of a stop order), or any required prospectus supplement and

accompanying prospectus are unavailable for the resale by Lincoln Park of our common stock offered hereby, and such lapse or unavailability continues for a period of 10 consecutive business days or for more than an aggregate of 30 business days in any 365-day period;

- suspension by our principal market of our common stock from trading for a period of one business day;
- the de-listing of our common stock from the Nasdaq Global Market, provided our common stock is not immediately thereafter trading on the New York Stock Exchange, the Nasdaq Capital Market, the Nasdaq Global Select Market, the NYSE MKT, the NYSE Arca, the OTC Bulletin Board, or the OTCQX or OTCQB operated by the OTC Markets Group, Inc. (or nationally recognized successor thereto);
- the transfer agent's failure for three business days to issue to Lincoln Park shares of our common stock which Lincoln Park is entitled to receive under the Purchase Agreement;
- any breach of the representations or warranties or covenants contained in the Purchase Agreement or any related agreement which has or which could have a material adverse effect on us subject to a cure period of five business days;
- any voluntary or involuntary participation or threatened participation in insolvency or bankruptcy proceedings by or against us;
- if at any time we are not eligible to transfer our common stock electronically; or
- if at any time the Exchange Cap is reached (to the extent the Exchange Cap is applicable).

Lincoln Park does not have the right to terminate the Purchase Agreement upon any of the events of default set forth above. During an event of default, all of which are outside of Lincoln Park's control, we will not be able to initiate any Regular Purchases, Accelerated Purchases or Additional Purchases under the Purchase Agreement.

Our Termination Rights

We have the unconditional right, at any time, for any reason and without any payment or liability to us, to give notice to Lincoln Park to terminate the Purchase Agreement. In the event of bankruptcy proceedings by or against us, the Purchase Agreement will automatically terminate without action of any party.

No Short-Selling or Hedging by Lincoln Park

Lincoln Park has agreed that neither it nor any of its affiliates shall engage in any direct or indirect short-selling or hedging of our common stock during any time prior to the termination of the Purchase Agreement.

No Variable Rate Transactions

We agreed with Lincoln Park that we will not enter into any "variable rate" transactions with any third party from the date of the Purchase Agreement until the later of (i) the 30-month anniversary of the date of the Purchase Agreement and (ii) the 30-month anniversary of the date we may commence Regular Purchases under the Purchase Agreement (in either case, irrespective of any earlier termination of the Purchase Agreement), subject to certain exceptions set forth in the Purchase Agreement. Additionally, we agreed with Lincoln Park that we will not effect any issuance of shares of our common stock in any "continuous offering", including, but not limited to, an equity line of credit, whereby we may sell securities at a future determined price for so long as this "variable rate" transactions prohibition is effective.

Effect of Performance of the Purchase Agreement on Our Stockholders

All shares of common stock registered in this offering are expected to be freely tradable. It is anticipated that shares registered in this offering will be sold in compliance with the terms and subject to the conditions of the Purchase Agreement over a period of up to 30 months commencing on the date that the registration statement including this prospectus becomes effective. The sale by Lincoln Park of a significant amount of shares registered in this offering at any given time could cause the market price of our common stock to decline and to be highly volatile. Lincoln Park may ultimately purchase all, some or none of the shares of common stock not yet issued but registered in this offering. If we sell these shares to Lincoln Park, Lincoln Park may sell all, some or none of such shares. Therefore, sales to Lincoln Park by us under the Purchase Agreement may result in substantial dilution to the interests of other holders of our common stock. In addition, if we sell a substantial number of shares to Lincoln Park under the Purchase Agreement, or if investors expect that we will do so, the actual sales of shares or the mere existence of our arrangement with Lincoln Park may make it more difficult for us to sell equity or equity-related securities at a time and at a price that we might otherwise wish to effect such sales. However, we have the right to control the timing and amount of any sales of our shares to Lincoln Park and the Purchase Agreement may be terminated by us at any time at our discretion without any cost to us.

Pursuant to the terms of the Purchase Agreement, we have the right, but not the obligation, to direct Lincoln Park to purchase up to \$15,400,000 of our common stock, inclusive of the 150,376 shares issued to Lincoln Park for a total purchase price of \$400,000 in the Initial Purchase and exclusive of the 113,205 shares issued to Lincoln Park as an initial commitment fee and the 113,206 shares that we will issue proportionally to Lincoln Park as an additional commitment fee, if and when we sell additional shares to Lincoln Park after the date of this prospectus pursuant to the Purchase Agreement. Depending on the per share prices at which we sell our common stock to Lincoln Park under the Purchase Agreement, we may be authorized to issue and sell to Lincoln Park under the Purchase Agreement more shares of our common stock than are offered under this prospectus. If we choose to do so, we must first register for resale under the Securities Act any such additional shares, which could cause additional substantial dilution to our stockholders. The number of shares ultimately offered for resale by Lincoln Park under this prospectus is dependent upon the number of shares we direct Lincoln Park to purchase under the Purchase Agreement.

The following table sets forth the amount of gross proceeds we would receive from Lincoln Park from our sale of shares to Lincoln Park under the Purchase Agreement at varying purchase prices:

Assumed Average Purchase Price Per Share	Number of Registered Shares to be Issued if Full Purchase ⁽¹⁾⁽²⁾	Percentage of Outstanding Shares After Giving Effect to the Issuance to Lincoln Park ⁽³⁾	Gross Proceeds from the Sale of Registered Shares to Lincoln Park Under the Purchase Agreement
\$1.50 ⁽⁴⁾	4,737,960	16.5%	\$ 7,106,940
\$2.73 ⁽⁵⁾	4,737,960	16.5%	\$ 12,934,631
\$3.00	4,737,960	16.5%	\$ 14,213,880
\$4.00	3,750,000	13.6%	\$ 15,000,000
\$5.00	3,000,000	11.1%	\$ 15,000,000

- (1) Although the Purchase Agreement provides that we may sell up to \$15,400,000 of our common stock to Lincoln Park, we are only registering 5,114,747 shares under this prospectus (inclusive of the (i) 150,376 shares issued to Lincoln Park in the Initial Purchase, (ii) the 113,205 shares of common stock issued to Lincoln Park on March 8, 2017 as an initial fee for its commitment to purchase additional shares of our common stock under the Purchase Agreement and (iii) the 113,206 shares of common stock to be issued proportionally to Lincoln Park, as an additional commitment fee, if and when we sell shares to Lincoln Park pursuant to the Purchase Agreement from and after the date of this prospectus), which may or may not cover all the shares we ultimately sell to Lincoln Park under the Purchase Agreement, depending on the purchase price per share. As a result, we have included in this column only those shares that we are registering in this offering.
- (2) The number of registered shares to be issued excludes (i) the 150,376 initial purchase shares and the 113,205 initial commitment shares previously issued to Lincoln Park and registered hereunder and (ii) the 113,206 additional commitment shares registered hereunder to be issued proportionally to Lincoln Park after the date of this prospectus if and when we sell shares to Lincoln Park pursuant to the Purchase Agreement because no proceeds will be attributable to such commitment shares.
- (3) The denominator is based on 23,659,753, shares outstanding as of March 7, 2017, adjusted to include the 150,376 initial purchase shares sold to Lincoln Park and the 113,205 shares issued to Lincoln Park as initial commitment shares in connection with this offering and the number of shares set forth in the adjacent column which we would have sold to Lincoln Park, assuming the purchase price in the adjacent column including any related pro rata additional commitment shares. The numerator does not include the 113,205 shares issued to Lincoln Park as initial commitment shares in connection with this offering, and is based on the number of shares registered in this offering to be issued under the Purchase Agreement at the applicable assumed purchase price per share set forth in the adjacent column. The number of shares in such column does not include shares that may be issued to Lincoln Park under the Purchase Agreement which are not registered in this offering. The table does not give effect to the prohibition contained in the Purchase Agreement that prevents us from selling and issuing to Lincoln Park shares such that, after giving effect to such sale and issuance, Lincoln Park and its affiliates would beneficially own more than 4.99% of the then outstanding shares of our common stock.
- (4) Under the Purchase Agreement, in no event may we deliver a Regular Purchase notice to Lincoln Park under the Purchase Agreement on any business day that the closing sale price of our common stock is less than \$1.50 per share, and in no event may we deliver an Accelerated Purchase notice or an Additional Purchase notice to Lincoln Park under the Purchase Agreement if the closing sale price of our common stock on the applicable date is less than \$3.00 per share, each of which amounts will be appropriately adjusted as provided in the Purchase Agreement for any reorganization, recapitalization, non-cash dividend, stock split or other similar transaction.
- (5) The closing sale price of our common stock on March 8, 2017 as reported on the Nasdaq Global Market.

USE OF PROCEEDS

The 263,581 shares of our common stock currently outstanding that are being offered for resale by Lincoln Park, the selling stockholder, under this prospectus will be sold for the account of Lincoln Park. As a result, all proceeds from the sales of the 263,581 shares of common stock currently outstanding and offered for resale hereby will go to Lincoln Park, and we will not receive any proceeds from the resale of those shares of common stock by Lincoln Park.

We received gross proceeds of \$400,000 from the Initial Purchase under the Purchase Agreement on March 8, 2017, and we may receive up to \$15.0 million of additional gross proceeds if we issue to Lincoln Park all of the additional purchase shares we may issue and sell to Lincoln Park from time to time in our sole discretion under the Purchase Agreement. Depending on the per share prices at which we sell our common stock to Lincoln Park under the Purchase Agreement, we may be authorized to issue and sell to Lincoln Park under the Purchase Agreement more shares of our common stock than are offered under this prospectus. As we are unable to predict the timing or amount of potential issuances of all of the shares offered hereby, we have not allocated any proceeds of such issuances to any particular purpose. Accordingly, all such proceeds are expected to be used for working capital and general corporate purposes. Accordingly, our management will have significant flexibility in applying any net proceeds that we receive from the sale of shares of our common stock pursuant to the Purchase Agreement. It is possible that no additional shares will be issued under the Purchase Agreement. After the issuance of any of the additional shares issuable under the Purchase Agreement, we would not receive any proceeds from the resale of those shares by Lincoln Park because those shares will be sold for the account of Lincoln Park.

We will incur all costs associated with this registration statement and prospectus.

PRICE RANGE OF SECURITIES

Our units (which comprised one share of our common stock, one-half of a Series A warrant and one-half of a Series B warrant) began trading under the symbol "ONSIU" on the Nasdaq Global Market on May 13, 2016 in connection with our initial public offering. Following separation of the units, on June 13, 2016, our shares of common stock and the Series A warrants and Series B warrants began trading under the symbols "ONS," "ONSIW" and "ONSIZ," respectively, and our units were delisted. On February 15, 2018, we transferred the listing of our securities from the Nasdaq Global Market to the Nasdaq Capital Market. Prior to our initial public offering, there was no public market for our securities. The following table sets forth for the periods indicated the high and low closing sales prices for our common stock as reported on the Nasdaq Global Market:

	Common Stock	
	High	Low
Fiscal Year 2018 Year-to-Date		
Second quarter (through February 13, 2018)	\$1.26	\$ 1.14
First quarter	1.44	1.14
Fiscal Year 2017		
Fourth quarter	2.02	0.83
Third quarter	2.53	0.98
Second quarter	3.75	2.65
First quarter	4.33	1.89
Fiscal Year Ended September 30, 2016		
Fourth quarter	5.49	3.04
Third quarter (from June 13, 2016)	4.48	3.25

On February 13, 2018, the last reported sale price of our common stock was \$1.15 per share. American Stock Transfer & Trust Company, LLC is the transfer agent and registrar for our common stock. As of February 13, 2018, there were approximately 133 holders of record of our common stock.

DIVIDEND POLICY

We have never declared or paid cash dividends on our capital stock, and we do not currently intend to pay any cash dividends on our capital stock in the foreseeable future. We currently intend to retain all available funds and any future earnings, if any, to fund the development and expansion of our business and we do not anticipate paying any cash dividends in the foreseeable future. Any future determination related to dividend policy will be made at the discretion of our board of directors subject to applicable laws, and will depend upon, among other factors, our results of operations, financial condition, contractual restrictions and capital requirements. Our future ability to pay cash dividends on our stock may also be limited by the terms of any future debt, issuances of preferred securities or terms of future credit facilities. Our outstanding senior secured notes issued in December 2016 restrict our ability to pay dividends.

SELLING STOCKHOLDER

The following table sets forth certain information regarding Lincoln Park, the selling stockholder, and the shares of common stock beneficially owned by it, which information is available to us as of December 31, 2017. Lincoln Park may offer the shares under this prospectus from time to time and may elect to sell some, all or none of the shares covered by this prospectus. However, for the purposes of the table below, we have assumed that, after completion of this offering, none of the shares covered by this prospectus will be held by Lincoln Park. In addition, Lincoln Park may have sold, transferred or otherwise disposed of all or a portion of its shares of common stock since the date on which it provided information for this table. We have not made independent inquiries about such transfers or dispositions. See the section titled "Plan of Distribution."

Beneficial ownership is determined in accordance with Rule 13d-3(d) promulgated by the SEC under the Exchange Act. The percentage of shares beneficially owned before the offering is based on 25,530,727 shares of our common stock outstanding as of December 31, 2017.

Selling Stockholder	Shares Beneficially Owned Before this Offering	Percentage of Outstanding Shares Beneficially Owned Before this Offering	Shares to be Sold in this Offering Assuming We Issue the Maximum Number of Shares Under the Purchase Agreement	Percentage of Outstanding Shares Beneficially Owned After this Offering
Lincoln Park Capital Fund, LLC ⁽¹⁾	263,581 ⁽²⁾	1.0% ⁽³⁾	5,114,747 ⁽⁴⁾	*

* Less than 1%

- (1) Josh Scheinfeld and Jonathan Cope, the Managing Members of Lincoln Park Capital, LLC, are deemed to be beneficial owners of all of the shares of common stock owned by Lincoln Park Capital Fund, LLC. Messrs. Cope and Scheinfeld have shared voting and investment power over the shares being offered under the prospectus filed with the SEC in connection with the transactions contemplated under the Purchase Agreement. Lincoln Park Capital, LLC is not a licensed broker-dealer or an affiliate of a licensed broker-dealer.
- (2) Represents (i) 150,376 shares of our common stock issued to Lincoln Park on March 8, 2017, for a total purchase price of \$400,000 in the Initial Purchase under the Purchase Agreement and (ii) 113,205 shares of our common stock issued to Lincoln Park on March 8, 2017, as an initial commitment fee, all of which shares are covered by the registration statement that includes this prospectus. See the description under the heading "The Lincoln Park Transaction" for more information about the Purchase Agreement.
- (3) Based on 25,530,727 outstanding shares of our common stock as of December 31, 2017. Although we may at our discretion elect to issue and sell to Lincoln Park up to an aggregate amount of \$15.0 million of our common stock under the Purchase Agreement, in addition to the shares issued in the Initial Purchase, such shares (and the 113,206 shares of common stock to be issued proportionally to Lincoln Park as an additional commitment fee, if and when we sell such shares to Lincoln Park after the date of this prospectus pursuant to the Purchase Agreement) are not included in determining the percentage of shares beneficially owned before this offering.
- (4) Assumes issuance of the maximum 5,114,747 shares being registered hereby.

PLAN OF DISTRIBUTION

An aggregate of up to 5,114,747 shares of our common stock may be offered by this prospectus by Lincoln Park pursuant to the Purchase Agreement. The common stock may be sold or distributed from time to time by Lincoln Park directly to one or more purchasers or through brokers, dealers, or underwriters who may act solely as agents at market prices prevailing at the time of sale, at prices related to the prevailing market prices, at negotiated prices, or at fixed prices, which may be changed. The sale of the common stock offered by this prospectus could be affected in one or more of the following methods:

- ordinary brokers' transactions;
- transactions involving cross or block trades;
- through brokers, dealers, or underwriters who may act solely as agents;
- "at-the-market" into an existing market for the common stock;
- in other ways not involving market makers or established business markets, including direct sales to purchasers or sales effected through agents;
- in privately negotiated transactions; or
- any combination of the foregoing.

In order to comply with the securities laws of certain states, if applicable, the shares may be sold only through registered or licensed brokers or dealers. In addition, in certain states, the shares may not be sold unless they have been registered or qualified for sale in the state or an exemption from the state's registration or qualification requirement is available and complied with.

Lincoln Park is an "underwriter" within the meaning of Section 2(a)(11) of the Securities Act.

Lincoln Park has informed us that it intends to use an unaffiliated broker-dealer to effectuate all sales, if any, of the common stock that it may purchase from us pursuant to the Purchase Agreement. Such sales will be made at prices and at terms then prevailing or at prices related to the then current market price. Each such unaffiliated broker-dealer will be an underwriter within the meaning of Section 2(a)(11) of the Securities Act. Lincoln Park has informed us that each such broker-dealer will receive commissions from Lincoln Park that will not exceed customary brokerage commissions.

Brokers, dealers, underwriters or agents participating in the distribution of the shares as agents may receive compensation in the form of commissions, discounts, or concessions from Lincoln Park and/or purchasers of the common stock for whom the broker-dealers may act as agent. The compensation paid to a particular broker-dealer may be less than or in excess of customary commissions. Neither we nor Lincoln Park can presently estimate the amount of compensation that any agent will receive. We know of no existing arrangements between Lincoln Park or any other stockholder, broker, dealer, underwriter or agent relating to the sale or distribution of the shares offered by this prospectus. At the time a particular offer of shares is made, a prospectus supplement, if required, will be distributed that will set forth the names of any agents, underwriters or dealers and any compensation from Lincoln Park, and any other required information.

We will pay the expenses incident to the registration, offering, and sale of the shares to Lincoln Park. We have agreed to indemnify Lincoln Park and certain other persons against certain liabilities in connection with the offering of shares of common stock offered hereby, including liabilities arising under the Securities Act or, if such indemnity is unavailable, to contribute amounts required to be paid in respect of such liabilities. Lincoln Park has agreed to indemnify us against liabilities under the Securities Act that may arise from certain written information furnished to us by Lincoln Park specifically for use in this prospectus or, if such indemnity is unavailable, to contribute amounts required to be paid in respect of such liabilities.

Lincoln Park has represented to us that at no time prior to the Purchase Agreement has it or its agents, representatives or affiliates engaged in or effected, in any manner whatsoever, directly or indirectly, any short sale (as such term is defined in Rule 200 of Regulation SHO of the Exchange Act) of our common stock or any hedging transaction, which establishes a net short position with respect to our common stock. Lincoln Park has agreed that during the term of the Purchase Agreement, it, its agents, representatives or affiliates will not enter into or effect, directly or indirectly, any of the foregoing transactions.

We have advised Lincoln Park that it is required to comply with Regulation M promulgated under the Exchange Act. With certain exceptions, Regulation M precludes Lincoln Park, any affiliated purchasers, and any broker-dealer or other person who participates in the distribution from bidding for or purchasing, or attempting to induce any person to bid for or

purchase any security which is the subject of the distribution until the entire distribution is complete. Regulation M also prohibits any bids or purchases made in order to stabilize the price of a security in connection with the distribution of that security. All of the foregoing may affect the marketability of the securities offered by this prospectus.

This offering will terminate on the date that all shares offered by this prospectus have been sold by Lincoln Park.

DESCRIPTION OF SECURITIES

Our authorized capital stock consists of 200,000,000 shares of common stock, par value \$0.01 per share, and 10,000,000 shares of preferred stock, par value \$0.01 per share. The following is a summary of the rights of our common and preferred stock and some of the provisions of our amended and restated certificate of incorporation and amended and restated bylaws, our investors' rights agreements and relevant provisions of Delaware General Corporation Law. Because it is only a summary, it does not contain all the information that may be important to you. For a complete description you should refer to our amended and restated certificate of incorporation, amended and restated bylaws, each as amended, and registration rights agreements, copies of which have been filed as exhibits to the registration statement of which this prospectus is a part, as well as the relevant provisions of Delaware General Corporation Law.

Common Stock

As of December 31, 2017, there were 25,530,727 shares of common stock outstanding held by 133 stockholders of record.

Voting Rights

Each holder of common stock is entitled to one vote for each share on all matters submitted to a vote of the stockholders. The affirmative vote of holders of 66 $\frac{2}{3}$ % of the voting power of all of the then-outstanding shares of capital stock, voting as a single class, will be required to amend certain provisions of our amended and restated certificate of incorporation, including provisions relating to amending our amended and restated bylaws, the classified board, the size of our board, removal of directors, director liability, vacancies on our board, special meetings, stockholder notices, actions by written consent and exclusive jurisdiction.

Dividends

Subject to preferences that may apply to any outstanding preferred stock, holders of our common stock are entitled to receive ratably any dividends that our board of directors may declare out of funds legally available for that purpose on a non-cumulative basis. Our outstanding senior secured notes first issued beginning December 2016, as well as the terms of our Series A Convertible Preferred Stock restrict our ability to pay dividends.

Liquidation

In the event of our liquidation, dissolution or winding up, holders of our common stock are entitled to share ratably in all assets remaining after payment of liabilities and the liquidation preference of any outstanding preferred stock.

Rights and Preferences

Holders of our common stock have no preemptive, conversion, subscription or other rights, and there are no redemption or sinking fund provisions applicable to our common stock. The rights, preferences and privileges of the holders of our common stock are subject to and may be adversely affected by the rights of the holders of shares of any series of our preferred stock that we may designate in the future.

Preferred Stock

Our board of directors has the authority, without further action by our stockholders, to issue up to 10,000,000 shares of preferred stock in one or more series and to fix the number, rights, preferences, privileges and restrictions thereof. These rights, preferences and privileges could include dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences and sinking fund terms, and the number of shares constituting any series or the designation of such series, any or all of which may be greater than the rights of common stock. The issuance of our preferred stock could adversely affect the voting power of holders of common stock and the likelihood that such holders will receive dividend payments and payments upon liquidation. In addition, the issuance of preferred stock could have the effect of delaying, deferring or preventing a change in control or other corporate action. On September 8, 2017, our Board designated 1,000,000 shares as "Series A Convertible Preferred Stock" and 1,500,000 shares as "Series B Convertible Preferred Stock." As of December 31, 2017, there were 250,000 shares of our Series A Convertible Preferred Stock and 1,500,000 shares of our Series B Convertible Preferred Stock issued and outstanding. Other than the payment of "PIK" dividends on the Series A Convertible Preferred Stock, we have no current plan to issue any additional shares of preferred stock.

Series A Convertible Preferred Stock

As of December 31, 2017, 1,000,000 shares of Series A Convertible Preferred Stock have been authorized for issuance, 250,000 of which were issued and outstanding. The shares of Series A Convertible Preferred have a stated value of \$100.00 per share and the 250,000 outstanding shares are currently convertible into approximately 37,795,948 shares of our common stock.

Dividends

The Series A Convertible Preferred Stock accrue dividends at a rate of 10% per annum, compounded quarterly, payable quarterly at our option in cash or in kind in additional shares of Series A Convertible Preferred Stock, although the initial dividends payable on the shares of Series A Convertible Preferred Stock issued at the initial closing, while accruing from issuance, were payable in December 2017. The Series A Convertible Preferred Stock are also entitled to dividends on an as-if-converted basis in the same form as any dividends actually paid on shares of our common stock or other securities. The initial conversion rate is subject to appropriate adjustment in the event of a stock split, stock dividend, combination, reclassification or other recapitalization affecting our common stock.

Voting

The holders of the Series A Convertible Preferred Stock have the right to vote on matters submitted to a vote of our stockholders on an as-converted basis. In addition, without the prior written consent of a majority of the outstanding shares of Series A Convertible Preferred Stock, we may not take certain actions.

The terms of the Series A Convertible Preferred Stock distinguish between certain liquidation events (such as a voluntary or involuntary liquidation, dissolution or winding up of our company) and “deemed” liquidation events (such as a sale of all or substantially all of our assets, various merger and reorganization transactions, being delisted from the Nasdaq and the occurrence of an event of default under the terms of the senior secured notes), in each case as defined in the Certificate of Designation. In the event of a liquidation (as defined in the Certificate of Designation) the liquidation preference payable equals the sum of (A) 110% of the stated value per share plus (B) (x) 110% of any accrued but unpaid preferred dividends (as defined in the Certificate of Designation) plus (y) any unpaid participating dividends (as defined in the Certificate of Designation). In the case of a deemed liquidation event (as defined in the Certificate of Designation), the multiplier is increased to 120%.

Conversion

The Series A Convertible Preferred Stock is convertible at any time at the option of the holder based on the then applicable conversion rate. If conversion is in connection with a liquidation (as defined in the Certificate of Designation), the holder is entitled to receive 110% of the number of shares of common stock issuable based upon the then applicable conversion rate. In the event of a deemed liquidation event (as defined in the Certificate of Designation), the multiplier is increased to 120%.

Redemption

Additionally, the holder may require the Company to redeem the Series A Convertible Preferred Stock in the event of deemed liquidation event for the sum of (A) 120% of the stated value per share plus (B) (x) 120% of any accrued but unpaid preferred dividends (as defined in the Certificate of Designation) plus (y) any unpaid participating dividends (as defined in the Certificate of Designation), although such redemption may not be made without the consent of the senior secured noteholders if such notes are outstanding at the time of any such redemption.

Series B Convertible Preferred Stock

As of December 31, 2017, 1,500,000 shares of Series B Convertible Preferred Stock have been authorized for issuance, all of which were issued and outstanding as of such date. The shares of Series B Convertible Preferred Stock are non-voting, do not accrue dividends nor do the shares of Series B Convertible Preferred Stock have any specific rights or preferences, and have a stated value of \$1.00 per share and are convertible into 2,112,676 shares of our common stock. However, the shares of Series B Convertible Preferred Stock are not convertible into our common Stock if the holder thereof would beneficially own more than 9.99% of our common stock, but automatically convert into common stock in part from time to time if the holder beneficially owns below a certain beneficial ownership threshold of our common stock.

Common Stock Equivalents

As of December 31, 2017, we had RSUs outstanding for an aggregate of 309,532 shares of our common stock and up to 163,974 shares potentially issuable upon the exercise of outstanding PSUs whose terms provide for settlement in shares of common stock or cash at our discretion, with a weighted-average exercise price of \$6.30.

As of December 31, 2017, we also had issued and outstanding (i) warrants to acquire an aggregate of 817,838 shares of our common stock at an initial exercise price of \$0.01 per share, which expire November 2019 and were issued in connection with our initial public offering pursuant to an investors' rights agreement, (ii) the Series A warrants to acquire

an aggregate of 3,333,333 shares of our common stock at an exercise price of \$6.60 per share, and which expire no later than February 2019, and the Series B warrants to acquire an aggregate of 3,333,333 shares of our common stock at an exercise price of \$8.50 per share, and which expire May 2018, in each case which were issued in our initial public offering and the concurrent private placement, (iii) warrants to acquire an aggregate of 3,882,001 shares of our common stock at an initial exercise price of \$3.00 per share, which expire December 2021 and were issued in connection with our senior secured note issuance, and (iv) warrants to acquire an aggregate 16,750,000 shares of common stock at an initial exercise price of \$0.90 per share, which expire October 2025 and were issued to the holder of our Series A Convertible Preferred Stock.

Stockholder Registration Rights

Certain holders of our securities, including certain holders of 5% of our capital stock, certain of our directors, and the holder of the Series A Convertible Preferred Stock, and the selling stockholder are entitled to certain rights with respect to registration of such securities under the Securities Act. These securities are referred to as registrable securities. The holders of these registrable securities possess registration rights pursuant to the terms of registration rights agreements. We are filing the registration statement of which this prospectus forms a part pursuant to a registration rights agreement with the selling stockholder, which we entered into in connection with entry into the purchase agreement.

In general, the registration of shares of our common stock pursuant to the exercise of registration rights enables the holders to trade such shares without restriction under the Securities Act when the applicable registration statement is declared effective. We generally have agreed to pay the registration expenses for such registration statements, other than underwriting discounts, selling commissions and stock transfer taxes, of the shares registered.

Generally, in an underwritten offering, the managing underwriter, if any, has the right, subject to specified conditions, to limit the number of shares the holders may include. We must use commercially reasonable efforts to keep the registration statement effective until the earlier of the date on which all registrable securities covered by such registration statement have been sold, or at such time that the holders of the registrable securities can sell their shares under Rule 144 of the Securities Act during any three-month period.

Anti-Takeover Provisions of Delaware Law and Our Charter Documents

Section 203 of the Delaware General Corporation Law

We are subject to Section 203 of the Delaware General Corporation Law, which prohibits a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years after the date that such stockholder became an interested stockholder, with the following exceptions:

- before such date, the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;
- upon completion of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction began, excluding for purposes of determining the voting stock outstanding (but not the outstanding voting stock owned by the interested stockholder) those shares owned (1) by persons who are directors and also officers and (2) employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; and
- on or after such date, the business combination is approved by the board of directors and authorized at an annual or special meeting of the stockholders, and not by written consent, by the affirmative vote of at least 66⅔% of the outstanding voting stock that is not owned by the interested stockholder.

In general, Section 203 defines a “business combination” to include the following:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder;
- subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- any transaction involving the corporation that has the effect of increasing the proportionate share of the stock or any class or series of the corporation beneficially owned by the interested stockholder;
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits by or through the corporation; and

- in general, Section 203 defines an “interested stockholder” as an entity or person who, together with the person’s affiliates and associates, beneficially owns, or within three years prior to the time of determination of interested stockholder status did own, 15% or more of the outstanding voting stock of the corporation.

The statute could prohibit or delay mergers or other takeover or change in control attempts and, accordingly, may discourage attempts to acquire us even though such a transaction may offer our stockholders the opportunity to sell their stock at a price above the prevailing market price.

Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws, as Amended

Among other things, our amended and restated certificate of incorporation and amended and restated bylaws, as amended:

- permit our board of directors to issue up to 10,000,000 shares of preferred stock, with any rights, preferences and privileges as they may designate, including the right to approve an acquisition or other change in control;
- provide that the authorized number of directors may be changed only by resolution of our board of directors;
- provide that our board of directors is classified into three classes of directors;
- provide that, subject to the rights of any series of preferred stock to elect directors, directors may only be removed for cause, which removal may be effected, subject to any limitation imposed by law, by the holders of at least a majority of the voting power of all of our then-outstanding shares of the capital stock entitled to vote generally at an election of directors;
- provide that all vacancies, including newly created directorships, may, except as otherwise required by law, be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum;
- require that any action to be taken by our stockholders must be effected at a duly called annual or special meeting of stockholders and not be taken by written consent or electronic transmission;
- provide that stockholders seeking to present proposals before a meeting of stockholders or to nominate candidates for election as directors at a meeting of stockholders must provide advance notice in writing, and also specify requirements as to the form and content of a stockholder’s notice;
- provide that special meetings of our stockholders may be called only by the chairman of our board of directors, our chief executive officer or president or by our board of directors pursuant to a resolution adopted by a majority of the total number of authorized directors; and
- not provide for cumulative voting rights, therefore allowing the holders of a majority of the shares of common stock entitled to vote in any election of directors to elect all of the directors standing for election, if they should so choose.

The amendment of any of these provisions requires approval by the holders of at least 66 $\frac{2}{3}$ % of the voting power of all of our then-outstanding common stock entitled to vote generally in the election of directors, voting together as a single class.

The combination of these provisions may make it more difficult for our existing stockholders to replace our board of directors as well as for another party to obtain control of us by replacing our board of directors. Because our board of directors has the power to retain and discharge our officers, these provisions could also make it more difficult for existing stockholders or another party to effect a change in management. In addition, the authorization of undesignated preferred stock makes it possible for our board of directors to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to change our control.

These provisions are intended to enhance the likelihood of continued stability in the composition of our board of directors and its policies and to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed to reduce our vulnerability to hostile takeovers and to discourage certain tactics that may be used in proxy fights. However, such provisions could have the effect of discouraging others from making tender offers for our shares and may have the effect of delaying changes in our control or management. As a consequence, these provisions may also inhibit fluctuations in the market price of our stock that could result from actual or rumored takeover attempts. We believe that the benefits of these provisions, including increased protection of our potential ability to negotiate with the proponent of an unfriendly or unsolicited proposal to acquire or restructure our company, outweigh the disadvantages of discouraging takeover proposals, because negotiation of takeover proposals could result in an improvement of their terms.

Choice of Forum

Our amended and restated certificate of incorporation and our amended and restated bylaws, as amended, provides that the Court of Chancery of the State of Delaware is the exclusive forum for any derivative action or proceeding brought on our behalf; any action asserting a breach of fiduciary duty; any action asserting a claim against us arising pursuant to the

Delaware General Corporation Law, our certificate of incorporation or our amended and restated bylaws, as amended; or any action asserting a claim against us that is governed by the internal affairs doctrine. The enforceability of similar choice of forum provisions in other companies' certificates of incorporation has been challenged in legal proceedings, and it is possible that, in connection with one or more actions or proceedings described above, a court could find the choice of forum provisions contained in our amended and restated certificate of incorporation to be inapplicable or unenforceable.

Listing

Our common stock, Series A warrants and Series B warrants are listed on the Nasdaq Capital Market under the symbols "ONS," "ONSIW" and "ONSIZ," respectively.

Transfer Agent, Registrar and Warrant Agent

The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company, LLC. Its address is 6201 15th Avenue, Brooklyn, New York 11219.

LEGAL MATTERS

The validity of the securities offered in this prospectus will be passed upon for us by Cooley LLP, New York, New York.

EXPERTS

The consolidated financial statements of Oncobiologics, Inc. as of September 30, 2017 and 2016 and for the years then ended have been incorporated by reference in this prospectus in reliance upon the report of KPMG LLP, independent registered public accounting firm, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing. The audit report covering the September 30, 2017 consolidated financial statements contains an explanatory paragraph that states that the Company has incurred recurring losses and negative cash flows from operations since inception and has an accumulated deficit at September 30, 2017 of \$186.2 million, \$13.5 million of senior secured notes due in December 2018 and \$4.6 million of indebtedness that is due on demand, which raises substantial doubt about the Company's ability to continue as a going concern. The consolidated financial statements do not include any adjustments that might result from the outcome of that uncertainty.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We are a reporting company and file annual, quarterly and current reports, proxy statements and other information with the SEC. We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to the resale of the common stock the selling stockholder is offering under this prospectus. This prospectus does not contain all of the information set forth in the registration statement and the exhibits to the registration statement. For further information with respect to us and the common stock offered by the selling stockholder under this prospectus, we refer you to the registration statement and the exhibits filed as a part of the registration statement. You may read and copy the registration statement, as well as our reports, proxy statements and other information, at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for more information about the operation of the public reference room. The SEC also maintains an Internet site that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC, including Oncobiologics. The SEC's Internet site can be found at www.sec.gov. We maintain a website at www.oncobiologics.com. Information found on, or accessible through, our website is not a part of, and is not incorporated into, this prospectus, and you should not consider it part of this prospectus.

INCORPORATION BY REFERENCE

The SEC allows us to incorporate by reference the information we file with it, which means that we can disclose important information to you by referring you to another document that we have filed separately with the SEC. You should read the information incorporated by reference because it is an important part of this prospectus. Information in this prospectus supersedes information incorporated by reference that we filed with the SEC prior to the date of this prospectus, while information that we file later with the SEC will automatically update and supersede the information in this prospectus. We incorporate by reference into this prospectus and the registration statement of which this prospectus is a part the information or documents listed below that we have filed with the SEC (Commission File No. 001-37759):

- our Annual Report on Form 10-K for the fiscal year ended September 30, 2017, filed with the SEC on December 29, 2017, and amended on January 29, 2018;
- our Quarterly Report on Form 10-Q filed with the SEC on February 14, 2018;
- our Current Reports on Form 8-K, filed with the SEC on October 3, 2017, October 31, 2017, January 4, 2018, February 7, 2018, February 9, 2018, and February 14, 2018; and
- the description of our common stock set forth in our registration statement on Form 8-A, filed with the SEC on April 29, 2016, as amended on May 11, 2016, including any further amendments thereto or reports filed for the purposes of updating this description.

We also incorporate by reference any future filings (other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items unless such Form 8-K expressly provides to the contrary) made with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, including those made after the date of the initial filing of the registration statement of which this prospectus is a part and prior to effectiveness of such registration statement, until we file a post-effective amendment that indicates the termination of the offering of the common stock made by this prospectus and will become a part of this prospectus from the date that such documents are filed with the SEC. Information in such future filings updates and supplements the information provided in this prospectus.

Any statements in any such future filings will automatically be deemed to modify and supersede any information in any document we previously filed with the SEC that is incorporated or deemed to be incorporated herein by reference to the extent that statements in the later filed document modify or replace such earlier statements.

We will furnish without charge to each person, including any beneficial owner, to whom a prospectus is delivered, upon written or oral request, a copy of any or all of the documents incorporated by reference into this prospectus but not delivered with the prospectus, including exhibits that are specifically incorporated by reference into such documents. You should direct any requests for documents to Oncobiologics, Inc., Attention: Corporate Secretary, 7 Clarke Drive, Cranbury, New Jersey 08512. Our phone number is (609) 619-3990.

5,114,747 Shares of Common Stock



PROSPECTUS

, 2018

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution.

The following table sets forth the costs and expenses payable by the registrant in connection with the sale of our securities being registered. All amounts are estimates except the SEC filing fee.

Item	Amount to be paid
SEC filing fee	\$ 1,607
Legal fees and expenses	75,000
Accounting fees and expenses	12,500
Printing and miscellaneous expenses	25,893
Total	\$ 115,000

Item 14. Indemnification of Directors and Officers.

As permitted by Section 102 of the Delaware General Corporation Law, we have adopted provisions in our amended and restated certificate of incorporation and amended and restated bylaws that limit or eliminate the personal liability of our directors for a breach of their fiduciary duty of care as a director. The duty of care generally requires that, when acting on behalf of the corporation, directors exercise an informed business judgment based on all material information reasonably available to them. Consequently, a director will not be personally liable to us or our stockholders for monetary damages for breach of fiduciary duty as a director, except for liability for:

- any breach of the director's duty of loyalty to us or our stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- any act related to unlawful stock repurchases, redemptions or other distributions or payment of dividends; or
- any transaction from which the director derived an improper personal benefit.

These limitations of liability do not affect the availability of equitable remedies such as injunctive relief or rescission. Our amended and restated certificate of incorporation also authorizes us to indemnify our officers, directors and other agents to the fullest extent permitted under Delaware law.

As permitted by Section 145 of the Delaware General Corporation Law, our amended and restated bylaws provide that:

- we may indemnify our directors, officers and employees to the fullest extent permitted by the Delaware General Corporation Law, subject to limited exceptions;
- we may advance expenses to our directors, officers and employees in connection with a legal proceeding to the fullest extent permitted by the Delaware General Corporation Law, subject to limited exceptions; and
- the rights provided in our bylaws are not exclusive.

Our amended and restated certificate of incorporation and amended and restated bylaws, each as amended and which are filed as Exhibits 3.1 and 3.3, provide for the indemnification provisions described above and elsewhere herein. We have entered into separate indemnification agreements with our directors and officers that may be broader than the specific indemnification provisions contained in the Delaware General Corporation Law. These indemnification agreements generally require us, among other things, to indemnify our officers and directors against liabilities that may arise by reason of their status or service as directors or officers, other than liabilities arising from willful misconduct. These indemnification agreements also generally require us to advance any expenses incurred by the directors or officers as a result of any proceeding against them as to which they could be indemnified. In addition, we have purchased a policy of directors' and officers' liability insurance that insures our directors and officers against the cost of defense, settlement or payment of a judgment in some circumstances. These indemnification provisions and the indemnification agreements may be sufficiently broad to permit indemnification of our officers and directors for liabilities, including reimbursement of expenses incurred, arising under the Securities Act of 1933, as amended, or the Securities Act.

We have entered into indemnification agreements with our directors and executive officers, in addition to the indemnification provided for in our amended and restated certificate of incorporation and amended and restated bylaws, and intend to enter into indemnification agreements with any new directors and executive officers in the future.

We have purchased and currently intend to maintain insurance on behalf of each and every person who is or was a director or officer of our company against any loss arising from any claim asserted against him or her and incurred by him or her in any such capacity, subject to certain exclusions.

Item 15. Recent Sales of Unregistered Securities.

The following list sets forth information as to all securities we have sold since the preceding three years up to the date of this document, which were not registered under the Securities Act.

- (a) From June 2014 through November 13, 2015, we issued 711,430 performance stock units, or PSUs, in exchange for shares of restricted stock and stock options granted prior to June 2014, and approximately 56,869 additional PSUs during the years ended September 30, 2014 and 2015, all of which were granted under our 2011 Equity Incentive Plan. Of the shares of restricted stock included in the exchange, 96,666 shares of restricted stock were granted subsequent to November 2012.
- (b) In June, July and September 2015, we sold an aggregate of 1,765,511 shares of our common stock to nine institutional investors for a purchase price of \$25.79 per share or approximately \$45.5 million in the aggregate. Citigroup Global Markets, Inc. and Jefferies LLC, each a registered broker-dealer and member of Financial Industry Regulation Authority, Inc., served as placement agents in this offering. The placement agents earned an aggregate of \$1.4 million in commissions with respect to this offering.
- (c) In October 2015, in connection with our reincorporation in Delaware, we issued 2,193,601 shares of our common stock and 10,193 shares of our Series A preferred stock in exchange for all then outstanding shares of common stock, Series A redeemable preferred stock and Series B redeemable preferred stock.
- (d) In October 2015, we issued 226,663 shares of our common stock and 1,626 shares of our Series A preferred stock in exchange for all outstanding Series A and Series A Hybrid Units of our former subsidiary Parilis Biopharmaceuticals LLC.
- (e) In December 2015, we issued 1,066,193 restricted stock unit awards under our 2015 Equity Incentive Plan.
- (f) In December 2015 and January 2016, we sold an aggregate of 573,388 shares of our common stock to 19 accredited investors for a purchase price of \$29.05 per share or approximately \$16.6 million in the aggregate. Jefferies LLC, Arlight Advisors LLC and Alere Financial Partners (a division of Cova Capital Partners, LLC), each a registered broker-dealer and member of Financial Industry Regulation Authority, Inc., served as placement agents in this offering. The placement agents earned an aggregate of approximately \$62,500 in commissions with respect to this offering.
- (g) In April 2016, we issued 30,421 restricted stock unit awards under our 2015 Equity Incentive Plan.
- (h) In May 2016, we issued certain of the accredited investors party to that certain investors' rights agreement dated March 10, 2014, as amended, three-year warrants to purchase an aggregate of 1,520,268 shares of our common stock.
- (i) In May 2016, concurrent with the closing of our initial public offering, we sold to an accredited investor in a concurrent private placement 833,332 shares of our common stock, 416,666 of our Series A warrants and 416,666 of our Series B warrants, for an aggregate purchase price of approximately \$5.0 million. The underwriters of our initial public offering served as placement agents for the private placement and receive a placement agent fee of approximately \$350,000.
- (j) In December 2016, we entered into a Note and Warrant Purchase Agreement, which we amended in April 2017 with the accredited investors named therein providing for the issuance and sale of up to \$15.0 million of senior secured promissory notes, which bear interest at a rate of 5% per year and mature December 22, 2017 and warrants to acquire up to an aggregate 3,965,000 shares of our common stock at an exercise price of \$3.00 per share, which have a five-year term. In October 2017, we exchanged \$1.5 million of these notes for 1.5 million shares of our Series B Convertible Preferred Stock.
- (k) In March 2017, we entered into a Purchase Agreement with the accredited investor named therein providing for the issuance and sale of up to \$15.4 million of shares of our common stock, and up to an additional 226,411 shares of common stock as a commitment fee.
- (l) In September 2017, we entered into a Purchase Agreement with the accredited investor named therein providing for the issuance and sale of 250,000 shares of our Series A Convertible Preferred Stock and warrants to acquire 16,750,000 shares of our common stock at an exercise price of \$0.90 per share, which have an eight year term, for an aggregate purchase price of \$25.0 million.

We claimed exemption from registration under the Securities Act for the sale and issuance of securities in the transactions described in paragraphs (a)-(d), (f) and (h)-(l) by virtue of Section 3(a)(9), 4(a)(2) and/or Regulation D promulgated

thereunder as transactions not involving any public offering. All of the purchasers of unregistered securities for which we relied on Section 4(a)(2) and/or Regulation D represented that they were accredited investors as defined under the Securities Act. We claimed such exemption on the basis that (a) the purchasers in each case represented that they intended to acquire the securities for investment only and not with a view to the distribution thereof and that they either received adequate information about the registrant or had access, through employment or other relationships, to such information and (b) appropriate legends were affixed to the stock certificates issued in such transactions.

We claimed exemption from registration under the Securities Act for the sales and issuances of securities in the transactions described in paragraphs (a), (e) and (g) above under Section 4(a)(2) of the Securities Act in that such sales and issuances did not involve a public offering or under Rule 701 promulgated under the Securities Act, in that they were offered and sold either pursuant to written compensatory plans or pursuant to a written contract relating to compensation, as provided by Rule 701.

Item 16. Exhibits and Financial Statement Schedules.

(a)

Exhibit Number	Description
<u>3.1</u>	<u>Amended and Restated Certificate of Incorporation of Oncobiologics, Inc. (incorporated by reference to Exhibit 3.1 to the Registrant's current report on Form 8-K filed with the SEC on May 19, 2016).</u>
<u>3.2</u>	<u>Amended and Restated Bylaws of Oncobiologics, Inc. (incorporated by reference to Exhibit 3.2 to the Registrant's current report on Form 8-K filed with the SEC on May 19, 2016).</u>
<u>3.3</u>	<u>Amendment to the Amended and Restated Bylaws of Oncobiologics, Inc. (incorporated by reference to Exhibit 3.1 to the Registrant's current report on Form 8-K filed with the SEC on November 29, 2016).</u>
<u>3.4</u>	<u>Certificate of Designation of Series A Convertible Preferred Stock and of Series B Convertible Preferred Stock of Oncobiologics, Inc. (incorporated by reference to Exhibit 3.1 to the Registrant's current report on Form 8-K filed with the SEC on September 11, 2017).</u>
<u>5.1</u>	<u>Opinion of Cooley LLP (incorporated by reference to Exhibit 5.1 to the Registrant's registration statement on Form S-1 filed on March 10, 2017).</u>
<u>10.1</u>	<u>Investors' Rights Agreement by and among Oncobiologics, Inc. and certain of its stockholders, dated March 10, 2014, as amended (incorporated by reference to Exhibit 10.1 to the Registrant's registration statement on Form S-1 (File No. 333-209011) filed with the SEC on May 11, 2016).</u>
<u>10.2</u>	<u>2011 Stock Incentive Plan (incorporated by reference to Exhibit 10.2 to the Registrant's registration statement on Form S-1 (File No. 333-209011) filed with the SEC on January 15, 2016).</u>
<u>10.3</u>	<u>Form of Amended and Restated Performance Stock Unit Agreement for 2011 Stock Incentive Plan (incorporated by reference to Exhibit 10.29 to the Registrant's registration statement on Form S-1 (File No. 333-209011) filed with the SEC on April 27, 2016).</u>
<u>10.4</u>	<u>2015 Equity Incentive Plan (incorporated by reference to Exhibit 10.3 to the Registrant's registration statement on Form S-1 (File No. 333-209011) filed with the SEC on January 15, 2016).</u>
<u>10.5</u>	<u>Forms of agreements and award grant notices for 2015 Equity Incentive Plan (incorporated by reference to Exhibit 10.4 to the Registrant's registration statement on Form S-1 (File No. 333-209011) filed with the SEC on January 15, 2016).</u>
<u>10.6</u>	<u>2016 Employee Stock Purchase Plan (incorporated by reference to Exhibit 10.5 to the Registrant's registration statement on Form S-1 (File No. 333-209011) filed with the SEC on February 12, 2016).</u>
<u>10.7</u>	<u>Form of Indemnity Agreement, by and between Oncobiologics, Inc. and each of its directors and executive officers (incorporated by reference to Exhibit 10.12 to the Registrant's registration statement on Form S-1 (File No. 333-209011) filed with the SEC on January 15, 2016).</u>
<u>10.8†</u>	<u>Research License Agreement by and between Oncobiologics, Inc. and Selexis SA, effective as of October 3, 2011, as amended by Amendment No. 1 dated as of October 9, 2014 (incorporated by reference to Exhibit 10.13 to the Registrant's registration statement on Form S-1 (File No. 333-209011) filed with the SEC on February 26, 2016).</u>
<u>10.9†</u>	<u>ONS-3010 Commercial License Agreement by and between Oncobiologics, Inc. and Selexis SA effective as of April 11, 2013, as amended effective as of May 21, 2014 (incorporated by reference to Exhibit 10.14 to the Registrant's registration statement on Form S-1 (File No. 333-209011) filed with the SEC on January 15, 2016).</u>
<u>10.10†</u>	<u>ONS-1045 Commercial License Agreement by and between Oncobiologics, Inc. and Selexis SA effective as of April 11, 2013, as amended effective as of May 21, 2014 (incorporated by reference to Exhibit 10.15 to the Registrant's registration statement on Form S-1 (File No. 333-209011) filed with the SEC on January 15, 2016).</u>

Exhibit Number	Description
<u>10.11†</u>	<u>ONS-1050 Commercial License Agreement by and between Oncobiologics, Inc. and Selexis SA effective as of April 11, 2013, as amended effective as of May 21, 2014 (incorporated by reference to Exhibit 10.16 to the Registrant's registration statement on Form S-1 (File No. 333-209011) filed with the SEC on January 15, 2016).</u>
<u>10.12</u>	<u>Joint Participation Agreement by and between Oncobiologics, Inc. and Zhejiang Huahai Pharmaceutical Co., Ltd., effective as of May 6, 2013, as amended by that Amendment No. 1 and Mutual Termination Agreement re: Joint Participation Agreement, dated December 23, 2014 (incorporated by reference to Exhibit 10.17 to the Registrant's registration statement on Form S-1 (File No. 333-209011) filed with the SEC on January 15, 2016).</u>
<u>10.13</u>	<u>Lease Agreement by and between Oncobiologics, Inc. and Cedar Brook 7 Corporate Center, LP, dated as of March 18, 2011 (incorporated by reference to Exhibit 10.18 to the Registrant's registration statement on Form S-1 (File No. 333-209011) filed with the SEC on January 15, 2016).</u>
<u>10.14</u>	<u>First Amendment to Lease Agreement by and between Oncobiologics, Inc. and Cedar Brook 7 Corporate Center, LP, dated as of December 2013 (incorporated by reference to Exhibit 10.19 to the Registrant's registration statement on Form S-1 (File No. 333-209011) filed with the SEC on January 15, 2016).</u>
<u>10.15</u>	<u>Second Amendment to Lease Agreement by and between Oncobiologics, Inc. and Cedar Brook 7 Corporate Center, LP, dated as of July 18, 2014 (incorporated by reference to Exhibit 10.20 to the Registrant's registration statement on Form S-1 (File No. 333-209011) filed with the SEC on January 15, 2016).</u>
<u>10.16</u>	<u>Third Amendment to Lease Agreement by and between Oncobiologics, Inc. and Cedar Brook 7 Corporate Center, LP, dated as of January 16, 2015 (incorporated by reference to Exhibit 10.21 to the Registrant's registration statement on Form S-1 (File No. 333-209011) filed with the SEC on January 15, 2016).</u>
<u>10.17</u>	<u>Fourth Amendment to Lease Agreement by and between Oncobiologics, Inc. and Cedar Brook 7 Corporate Center, LP, dated as of February 9, 2015 (incorporated by reference to Exhibit 10.22 to the Registrant's registration statement on Form S-1 (File No. 333-209011) filed with the SEC on January 15, 2016).</u>
<u>10.18</u>	<u>Fifth Amendment to Lease Agreement by and between Oncobiologics, Inc. and Cedar Brook 7 Corporate Center, LP, dated as of September 26, 2015 (incorporated by reference to Exhibit 10.23 to the Registrant's registration statement on Form S-1 (File No. 333-209011) filed with the SEC on January 15, 2016).</u>
<u>10.19</u>	<u>Lease Agreement by and between Cedar Brook East Corporate Center, LP and Oncobiologics, Inc., dated as of August 31, 2015 (incorporated by reference to Exhibit 10.24 to the Registrant's registration statement on Form S-1 (File No. 333-209011) filed with the SEC on January 15, 2016).</u>
<u>10.20</u>	<u>Employment Agreement between Oncobiologics, Inc. and Pankaj Mohan, Ph.D., dated February 22, 2016 (incorporated by reference to Exhibit 10.25 to the Registrant's registration statement on Form S-1 (File No. 333-209011) filed with the SEC on April 27, 2016).</u>
<u>10.21</u>	<u>Employment Agreement between Oncobiologics, Inc. and Lawrence A. Kenyon, dated February 18, 2016 (incorporated by reference to Exhibit 10.28 to the Registrant's registration statement on Form S-1 (File No. 333-209011) filed with the SEC on April 27, 2016).</u>
<u>10.22</u>	<u>Employment Agreement between Oncobiologics, Inc. and Kenneth Bahrt, M.D., dated February 22, 2016 (incorporated by reference to Exhibit 10.26 to the Registrant's registration statement on Form S-1 (File No. 333-209011) filed with the SEC on April 27, 2016).</u>
<u>10.23</u>	<u>Employment Agreement between Oncobiologics, Inc. and Elizabeth A. Yamashita, dated February 24, 2016 (incorporated by reference to Exhibit 10.27 to the Registrant's registration statement on Form S-1 (File No. 333-209011) filed with the SEC on April 27, 2016).</u>
<u>10.24</u>	<u>Form of Amended and Restated Performance Stock Unit Agreement for 2011 Stock Incentive Plan (incorporated by reference to Exhibit 10.29 to the Registrant's registration statement on Form S-1 (File No. 333-209011) filed with the SEC on April 27, 2016).</u>
<u>10.25</u>	<u>Form of Warrant to Purchase Common Stock (incorporated by reference to Exhibit 10.30 to the Registrant's registration statement on Form S-1 (File No. 333-209011) filed with the SEC on May 11, 2016).</u>
<u>10.26</u>	<u>Securities Purchase Agreement between Oncobiologics, Inc. and Sabby Healthcare Master Fund Ltd., dated May 11, 2016 (incorporated by reference to Exhibit 10.1 to the Registrant's current report on Form 8-K filed with the SEC on May 19, 2016).</u>
<u>10.27</u>	<u>Warrant Agreement by and between Oncobiologics, Inc. and American Stock Transfer & Trust Company LLC, as Warrant Agent dated May 18, 2016 (incorporated by reference to Exhibit 10.4 to the Registrant's Quarterly Report on Form 10-Q filed with the SEC on June 27, 2016).</u>
<u>10.28</u>	<u>Amendment to the Warrant Agreement dated May 18, 2016 by and Oncobiologics, Inc. and American Stock Transfer & Trust Company LLC, as Warrant Agent, dated February 6, 2017 (incorporated by reference to Exhibit 10.1 to the Registrant's current report on Form 8-K filed with the SEC on February 6, 2017).</u>
<u>10.29</u>	<u>Form of Series A warrant certificate (included in Exhibit 10.27).</u>

Exhibit Number	Description
<u>10.30</u>	<u>Form of Series B warrant certificate (included in Exhibit 10.27).</u>
<u>10.31</u>	<u>Note and Warrant Purchase Agreement by and between Oncobiologics, Inc. and the Purchasers named therein dated December 22, 2016 (incorporated by reference to Exhibit 10.1 to the Registrant's current report on Form 8-K filed with the SEC on December 23, 2016).</u>
<u>10.32</u>	<u>First Amendment to Note and Warrant Purchase Agreement by and among Oncobiologics, Inc. and the Noteholders named therein, dated April 13, 2017 (incorporated by reference to Exhibit 10.1 to the Registrant's current report on Form 8-K filed with the SEC on April 17, 2017).</u>
<u>10.33</u>	<u>Note, Warrant and Registration Rights Amendment and Waiver, dated September 7, 2017 (incorporated by reference to Exhibit 10.9 to the Registrant's current report on Form 8-K filed with the SEC on September 11, 2017).</u>
<u>10.34</u>	<u>Form of Senior Secured Promissory Note (included as Exhibit A to the Note and Warrant Purchase Agreement filed as Exhibit 10.31).</u>
<u>10.35</u>	<u>Form of Warrant (included as Exhibit B to the Note and Warrant Purchase Agreement filed as Exhibit 10.31).</u>
<u>10.36</u>	<u>Security Agreement by and between Oncobiologics, Inc. and the Secured Parties named therein dated December 22, 2016 (incorporated by reference to Exhibit 10.4 to the Registrant's current report on Form 8-K filed with the SEC on December 23, 2016).</u>
<u>10.37</u>	<u>Intellectual Property Security Agreement by and between Oncobiologics, Inc. and the Secured Parties named therein dated December 22, 2016 (incorporated by reference to Exhibit 10.5 to the Registrant's current report on Form 8-K filed with the SEC on December 23, 2016).</u>
<u>10.38</u>	<u>Registration Rights Agreement by and among Oncobiologics, Inc. and the Investors named therein, dated February 3, 2017 (incorporated by reference to Exhibit 10.1 to the Registrant's current report on Form 8-K filed with the SEC on February 3, 2017).</u>
<u>10.39</u>	<u>Purchase Agreement by and between Oncobiologics, Inc. and Lincoln Park Capital Fund, LLC, dated March 8, 2017 (incorporated by reference to Exhibit 10.1 to the Registrant's current report on Form 8-K filed with the SEC on March 9, 2017).</u>
<u>10.40</u>	<u>Registration Rights Agreement by and between Oncobiologics, Inc. and Lincoln Park Capital Fund, LLC, dated March 8, 2017 (incorporated by reference to Exhibit 10.2 to the Registrant's current report on Form 8-K filed with the SEC on March 9, 2017).</u>
<u>10.41</u>	<u>Purchase Agreement by and between Oncobiologics, Inc. and the Investor named therein, dated September 7, 2017 (incorporated by reference to Exhibit 10.1 to the Registrant's current report on Form 8-K filed with the SEC on September 11, 2017).</u>
<u>10.42</u>	<u>Form of Warrant to Purchase Common Stock of Oncobiologics, Inc. (incorporated by reference to Exhibit 4.1 to the Registrant's current report on Form 8-K filed with the SEC on September 11, 2017).</u>
<u>10.43</u>	<u>Purchase and Exchange Agreement by and between Oncobiologics, Inc. and the Noteholders named therein, dated September 7, 2017 (incorporated by reference to Exhibit 10.2 to the Registrant's current report on Form 8-K filed with the SEC on September 11, 2017).</u>
<u>10.44</u>	<u>Investor Rights Agreement by and between Oncobiologics, Inc. and the Investor named therein, dated September 7, 2017 (incorporated by reference to Exhibit 10.3 to the Registrant's current report on Form 8-K filed with the SEC on September 11, 2017).</u>
<u>10.45</u>	<u>Form of Voting and Lock-up Agreement by and between the Investor named therein and the director or Executive Officer of Oncobiologics, Inc. party thereto, dated September 7, 2017 (incorporated by reference to Exhibit 10.4 to the Registrant's current report on Form 8-K filed with the SEC on September 11, 2017).</u>
<u>10.46</u>	<u>Voting and Lock-up Agreement by and between the Investor named therein and Todd C. Brady, Director Oncobiologics, Inc., dated September 7, 2017 (incorporated by reference to Exhibit 10.5 to the Registrant's current report on Form 8-K filed with the SEC on September 11, 2017).</u>
<u>10.47</u>	<u>Form of Voting and Lock-up Agreement by and between the Investor named therein and the Stockholder of Oncobiologics, Inc. party thereto, dated September 7, 2017 (incorporated by reference to Exhibit 10.6 to the Registrant's current report on Form 8-K filed with the SEC on September 11, 2017).</u>
<u>10.48</u>	<u>Form of Voting and Lock-up Agreement by and between the Investor named therein and the Noteholder named therein, dated September 7, 2017 (incorporated by reference to Exhibit 10.7 to the Registrant's current report on Form 8-K filed with the SEC on September 11, 2017).</u>
<u>10.49</u>	<u>Lock-up Agreement by and between the Investor named therein and Pankaj Mohan, Ph.D., dated September 7, 2017 (incorporated by reference to Exhibit 10.8 to the Registrant's current report on Form 8-K filed with the SEC on September 11, 2017).</u>
<u>10.50</u>	<u>Sixth Amendment to Lease Agreement by and between Oncobiologics, Inc. and Cedar Brook 7 Corporate Center L.P., dated as of February 1, 2018 (incorporated by reference to Exhibit 10.1 to the Registrant's current report on Form 8-K filed with the SEC on February 7, 2018).</u>

Exhibit Number	Description
10.51	Amendment #2 to the Warrant Agreement dated May 18, 2016 by and between Oncobiologics, Inc. and American Stock Transfer & Trust Company, LLC, as Warrant Agent, dated February 9, 2018 (incorporated by reference to Exhibit 10.1 the Registrant's current report on Form 8-K filed with the SEC on February 9, 2018).
23.1	Consent of independent registered public accounting firm.
23.2	Consent of Cooley LLP (included in Exhibit 5.1).
24.1	Power of Attorney (included on signature page).
101.INS	XBRL Instance Document (incorporated by reference to Exhibit 101.INS to the Registrant's Annual Report on Form 10-K for the year ended September 30, 2017, filed with the SEC on December 29, 2017).
101.SCH	XBRL Taxonomy Extension Schema Document (incorporated by reference to Exhibit 101.SCH to the Registrant's Annual Report on Form 10-K for the year ended September 30, 2017, filed with the SEC on December 29, 2017).
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document (incorporated by reference to Exhibit 101.CAL to the Registrant's Annual Report on Form 10-K for the year ended September 30, 2017, filed with the SEC on December 29, 2017).
101.DEF	XBRL Definition Linkbase Document (incorporated by reference to Exhibit 101.DEF to the Registrant's Annual Report on Form 10-K for the year ended September 30, 2017, filed with the SEC on December 29, 2017).
101.LAB	XBRL Taxonomy Extension Labels Linkbase Document (incorporated by reference to Exhibit 101.LAB to the Registrant's Annual Report on Form 10-K for the year ended September 30, 2017, filed with the SEC on December 29, 2017).
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document (incorporated by reference to Exhibit 101.PRE to the Registrant's Annual Report on Form 10-K for the year ended September 30, 2017, filed with the SEC on December 29, 2017).

† Portions of this exhibit (indicated by asterisks) have been omitted pursuant to a request for confidential treatment and this exhibit has been filed separately with the SEC.

(b) Financial Statement Schedules. Schedules have been omitted because the information required to be set forth therein is not applicable or is shown in the financial statements or notes thereto.

Item 17. Undertakings.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act, and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question of whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

The undersigned Registrant hereby undertakes:

- (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
 - (i) to include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;
 - (ii) to reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and
 - (iii) to include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement.

provided, however, that paragraphs (1)(i), (ii) and (iii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the Registrant pursuant to section 13 or section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement.

- (2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser return (i) each prospectus filed pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof. *Provided, however*, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.
 - (ii) each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. *Provided, however*, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.
- (5) That, for the purpose of determining liability of the Registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities, in a primary offering of securities of the undersigned Registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:
 - (i) any preliminary prospectus or prospectus of the undersigned Registrant relating to the offering required to be filed pursuant to Rule 424; (ii) any free writing prospectus relating to the offering prepared by or on behalf of the undersigned Registrant or used or referred to by the undersigned Registrant; (iii) the portion of any other free writing prospectus relating to the offering containing material information about the undersigned Registrant or its securities provided by or on behalf of the undersigned Registrant; and (iv) any other communication that is an offer in the offering made by the undersigned Registrant to the purchaser.
- (6) For purposes of determining any liability under the Securities Act of 1933, each filing of the Registrant's annual report pursuant to section 13(a) or section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant has duly caused this Registration Statement on Form S-1 to be signed on its behalf by the undersigned, thereunto duly authorized, in Cranbury, New Jersey, on February 15, 2018.

ONCOBIOLOGICS, INC.

By: /s/ Pankaj Mohan
Pankaj Mohan, Ph.D.
Chairman, President and Chief Executive Officer

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Pankaj Mohan, Ph.D. and Lawrence A. Kenyon and each of them, individually, as his true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him and in his name, place and stead in any and all capacities, in connection with this registration statement, including to sign in the name and on behalf of the undersigned, this registration statement and any and all amendments thereto, including post-effective amendments and registrations filed pursuant to Rule 462(b) under the Securities Act of 1933, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto such attorneys-in-fact and agents full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or his substitute, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
<u>/s/ Pankaj Mohan</u> Pankaj Mohan, Ph.D.	Chairman, President and Chief Executive Officer <i>(Principal Executive Officer)</i>	February 15, 2018
<u>/s/ Lawrence A. Kenyon</u> Lawrence A. Kenyon	Chief Financial Officer <i>(Principal Accounting and Financial Officer)</i>	February 15, 2018
<u>/s/ Claudio Albrecht</u> Claudio Albrecht, M.D., Ph.D.	Director	February 15, 2018
<u>/s/ Scott A. Canute</u> Scott A. Canute	Director	February 15, 2018
<u>/s/ Yezan M. Haddadin</u> Yezan M. Haddadin	Director	February 15, 2018
<u>/s/ Kurt J. Hilzinger</u> Kurt J. Hilzinger	Director	February 15, 2018
<u>/s/ Faisal G. Sukhtian</u> Faisal G. Sukhtian	Director	February 15, 2018
<u>/s/ Joe Thomas</u> Joe Thomas	Director	February 15, 2018

Consent of Independent Registered Public Accounting Firm

The Board of Directors
Oncobiologics, Inc.:

We consent to the use of our report incorporated by reference herein and to the reference to our firm under the heading “Experts” in the prospectus. Our report dated December 29, 2017 contains an explanatory paragraph that states that Oncobiologics, Inc. has incurred recurring losses and negative cash flows from operations since inception and has an accumulated deficit at September 30, 2017 of \$186.2 million, \$13.5 million of senior secured notes due in December 2018 and \$4.6 million of indebtedness that is due on demand, which raises substantial doubt about its ability to continue as a going concern. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

/s/ KPMG LLP

Philadelphia, Pennsylvania

February 15, 2018
