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

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FORM S-3  
REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

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**Iovance Biotherapeutics, Inc.**  
(Exact name of registrant as specified in its charter)

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Delaware  
(State or other jurisdiction of  
incorporation or organization)

75-3254381  
(I.R.S. Employer  
Identification Number)

999 Skyway Road, Suite 150  
San Carlos, California 94070  
(Address of registrant's principal executive offices, including zip code)

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Maria Fardis, Ph.D., M.B.A.  
President and Chief Executive Officer  
Iovance Biotherapeutics, Inc.  
999 Skyway Road, Suite 150  
San Carlos, California 94070  
(650) 260-7120  
(Name, address, including zip code, and telephone number, including area code, of agent for service)

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With copies to:  
Istvan Benko  
Tony Shin  
TroyGould PC  
1801 Century Park East, 16th Floor  
Los Angeles, California 90067  
(310) 553-4441

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**Approximate date of commencement of proposed sale to the public:** From time to time after the effective date of this registration statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, check the following box.

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, other than securities offered only in connection with dividend or interest reinvestment plans, 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 registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

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	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/> (Do not check if a smaller reporting company)	Smaller reporting company	<input type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

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

#### CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered	Amount to be registered (1)(2)	Proposed maximum offering price per unit (1)(2)	Proposed maximum aggregate offering price (2)	Amount of registration fee
Common Stock, \$0.000041666 par value (3)				—
Preferred Stock, \$0.001 par value (3)				—
Debt Securities (3)				—
Warrants (3)				—
Units				—
Total			\$ 250,000,000	\$ 31,125(2)(4)

(1) Such indeterminate number of each identified class of securities as may from time to time be determined by the registrant and issued at prices determined by the registrant, with an aggregate offering price not to exceed \$250,000,000. Securities registered hereunder may be sold separately, together with other securities registered hereunder or as units with other securities registered hereunder.

(2) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(o) under the Securities Act of 1933, as amended (the “Securities Act”). Pursuant to Rule 457(o) and General Instruction II.D of Form S-3, which permits the registration fee to be calculated on the basis of the maximum offering price of all the securities listed for the primary offering, the table does not specify by each class of security information as to the amount to be registered or proposed maximum offering price per security.

(3) Subject to footnote (1), pursuant to Rule 416 under the Securities Act there are also being registered hereunder an indeterminate number of shares of common stock and preferred stock and indeterminate principal amount of debt securities that may be issued upon conversion of, or in exchange for, securities registered hereunder or upon exercise of warrants registered hereunder or as a result of stock splits, stock dividends or similar transactions, as the case may be.

(4) Pursuant to Rule 415(a)(6) under the Securities Act, \$42,499,991 of the securities registered hereunder consists of unsold securities previously registered under the registration statement on Form S-3 (Reg. No. 333-215320) declared effective on January 11, 2017, and the registration fee of \$4,925.75 paid with respect to such unsold securities in connection with such previous registration statement is offset against the filing fee due hereunder.

**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 or until the registration statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.**

**The registrant previously filed with the Securities and Exchange Commission a registration statement on Form S-3 (Reg. No. 333-215320) declared effective on January 11, 2017, utilizing the “shelf” registration process under Rule 415 of the Securities Act, which we refer to as the Earlier Registration Statement. This registration statement includes \$42,499,991 of securities that remain unsold under the Earlier Registration Statement. Pursuant to Rule 415(a)(6) of the Securities Act, the offering of the unsold securities under the Earlier Registration Statement will be deemed terminated as of the date of effectiveness of this registration statement.**

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**The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities, and it is not soliciting an offer to buy these securities, in any state where the offer or sale is not permitted.**

**Subject to Completion, Dated December 28, 2017**

PROSPECTUS

**\$250,000,000**

# **IOVANCE BIOTHERAPEUTICS, INC.**

**Common Stock  
Preferred Stock  
Debt Securities  
Warrants  
Units**

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We may offer and sell from time to time, in one or more offerings and on terms that we will determine at the time of each offering, shares of common stock, shares of preferred stock, debt securities and/or warrants, either separately, together with other securities covered by this prospectus or as units consisting of two or more of the securities covered by this prospectus. The debt securities, preferred stock and warrants may be convertible into or exercisable or exchangeable for common stock, preferred stock or debt securities. The aggregate offering price of all securities sold under this prospectus will not exceed \$250,000,000.

We will provide the specific terms of each offering of securities, including the price and the type and amount of securities to be offered and sold, in a supplement to this prospectus. You should read this prospectus and the prospectus supplement carefully before you invest.

We may offer and sell these securities directly to purchasers or to or through one or more underwriters, dealers and agents, and on a continuous or delayed basis. If we sell securities to or through underwriters, dealers or agents, we will include their names and the fees, commissions and discounts that they will receive, as well as the net proceeds to us, in the prospectus supplement. This prospectus may not be used to sell our securities unless it is accompanied by the prospectus supplement. The delivery of this prospectus together with a prospectus supplement relating to the offered securities shall not constitute an offer of any other securities covered by this prospectus.

**Investing in our securities involves a high degree of risk. See “Risk Factors” on page 4 of this prospectus and in the applicable prospectus supplement for a discussion of risks that you should consider before you invest in our securities.**

Our common stock is traded on The NASDAQ Global Market under the symbol “IOVA.” On December 28, 2017, the last reported sale price of our common stock on The NASDAQ Global Market was \$8.30 per share.

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**Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.**

**The date of this prospectus is .**

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## ABOUT THIS PROSPECTUS

This prospectus is a part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission (the “SEC”) utilizing a “shelf” registration process. Under the shelf registration process, we may sell any combination of the securities described in this prospectus in one or more transactions up to a total dollar amount of \$250,000,000.

The rules and regulations of the SEC allow us to omit from this prospectus certain information that is included in the registration statement. For further information about us and our securities, you should review the registration statement and the exhibits filed with the registration statement. In addition, the SEC allows us to incorporate by reference into this prospectus information in the reports and other documents that we file with the SEC, which means that we can disclose important information to you by referring you to those reports and other documents. The information incorporated by reference is considered to be part of this prospectus, and information that we later file with the SEC will automatically update and, where applicable, modify or supersede that information. You may read the registration statement (including its exhibits) and the reports and other documents that we file with the SEC at the SEC’s website, [www.sec.gov](http://www.sec.gov), or at the SEC’s Public Reference Room described below under the heading “Where You Can Find More Information.”

This prospectus provides you with a general description of the securities we may offer. Each time we offer securities under this shelf registration, we will provide a prospectus supplement that will contain specific information about the terms of that offering. The prospectus supplement may also add, update or change information contained in this prospectus. You should read both this prospectus and any prospectus supplement together with the additional information described under the heading “Incorporation of Certain Information by Reference.” To the extent that any information in the prospectus supplement is inconsistent with the information in this prospectus, the information in the prospectus supplement will modify or supersede this prospectus.

This prospectus and the applicable prospectus supplement do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the registered securities to which they relate, nor do this prospectus and the applicable prospectus supplement constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction.

You should not assume that the information contained in this prospectus and the applicable prospectus supplement is accurate as of any date subsequent to the date set forth on the front of the document or that any information we have incorporated by reference is correct as of any date subsequent to the date of the document incorporated by reference, even though this prospectus and any applicable prospectus supplement is delivered or securities are sold on a later date. Our business, financial condition, results of operations and prospects may have changed since those dates.

You should rely only on the information contained in this prospectus, in the applicable prospectus supplement and in any documents incorporated by reference into this prospectus and the applicable prospectus supplement. We have not authorized any salesperson, dealer or other person to provide you with information different from that contained in this prospectus, in the applicable prospectus supplement or in any documents incorporated by reference into this prospectus or the applicable prospectus supplement, and you are not entitled to rely upon any such different information.

Throughout this prospectus, the terms “Iovance,” “we,” “us,” “our,” and “our company” refer to Iovance Biotherapeutics, Inc., a Delaware corporation.

## IOVANCE BIOTHERAPEUTICS, INC.

### Overview

We are a clinical-stage biopharmaceutical company focused on the development and commercialization of novel cancer immunotherapy products designed to harness the power of a patient's own immune system to eradicate cancer cells. Our lead program is an adoptive cell therapy utilizing tumor-infiltrating lymphocytes (TIL), which are T cells derived from patients' tumors. This is a platform technology that has already been applied to the treatment of metastatic melanoma and metastatic cervical cancer by the National Cancer Institute (NCI). We are investigating effectiveness of TIL therapy for the treatment of metastatic melanoma, squamous cell carcinoma of the head and neck, cervical carcinoma, and metastatic non-small cell lung cancer, as well as other oncology indications.

A patient's immune system, particularly their TIL, plays an important role in identifying and killing cancer cells. TIL product consist of a polyclonal population of T cells that can recognize a wide variety of cancer-specific mutations. TIL regimen targets a tumor through the polyclonal nature of the TIL product, and is able to overcome the hostile tumor microenvironment because of the non-myeloablative chemotherapy that is a component of TIL therapy and the nature of the TIL cells themselves. TIL therapy involves growing a patient's TIL outside the patient's body, or ex vivo, administering non-myeloablative chemotherapy, infusing the T cells back into the patient, followed up with an infusion of up to six doses of interleukin-2 (IL-2). By expanding a patient's TIL ex vivo away from the immunosuppressive tumor microenvironment, the T cells can rapidly proliferate. As a result, billions of TIL cells, when infused back into the patient, are better able to potentially eradicate tumors.

Manufacturing of TIL has typically taken 5-6 weeks and has yielded a non-cryopreserved TIL product. We have developed a new manufacturing method that reduces the duration of manufacture of the TIL product to 22 days, and allows for production of a cryopreserved TIL product. We refer to our new manufacturing method as Generation 2 (Gen 2) manufacturing. We own the intellectual property associated with Gen 2 manufacturing. In 2017, we selected Gen 2 as the manufacturing method for TIL product to be used in all of our ongoing and upcoming trials. The cryopreserved TIL product offers greater flexibility in scheduling the dosing of patients, reduces the period for patients to wait until they receive their TIL product infusion, and reduces the cost of manufacture.

We are pursuing metastatic melanoma as our first target indication because of the promising initial results in this indication generated by Dr. Steven Rosenberg, M.D., Ph.D., Chief of the Surgery Branch of the NCI, and the commercial opportunity inherent in the significant unmet need of this patient population. Melanoma is a common type of skin cancer, accounting for 87,110 patients diagnosed and 9,730 deaths in 2017 in the United States according to the American Cancer Society's Cancer Estimates for 2017. According to the NCI's Surveillance, Epidemiology and End Results (SEER) program, about 2-5% of patients with melanoma have metastatic disease. Patients with metastatic melanoma following treatment under the current standards of care have a particularly dire prognosis with very few curative treatment options.

We have an on-going Phase 2 clinical trial, C-144-01, of our lead product candidate, LN-144, TIL for the treatment of metastatic melanoma. This multicenter study is enrolling patients with melanoma whose disease has progressed following treatment with at least one systemic therapy, including anti-PD-1 and if BRAF mutated, a BRAF inhibitor. The trial is currently active at eleven U.S. sites. We anticipate initiating patient dosing in Europe during the first half of 2018. The purpose of the study is to evaluate the efficacy and safety of our autologous TIL product (LN-144). The trial's primary objective is to characterize the efficacy of LN-144. Secondary outcome measures for safety and efficacy of LN-144 include objective response and complete response rates. Additional secondary or exploratory endpoints may be evaluated as well. On December 13, 2017, we reported updated results from cohort 2 of the C-144-01 study. The data reported showed clinically-meaningful outcomes with a 40% Objective Response Rate (per RECIST v1.1), which included four partial responses observed in ten efficacy evaluable patients. The efficacy evaluable patients had a high tumor burden despite a median of 3.6 prior therapies including both anti-CTLA and PD-1 prior treatments. The most common side effects of any grade were pyrexia, anemia and decreased neutrophil count. Since we have decided to use our Gen 2 manufacturing process for all ongoing Phase 2 trials and in all future TIL clinical development in trials sponsored by us, Cohort 1 of the C-144-01 melanoma study will be closed to enrollment, and new patients will be enrolled in cohort 2.

We received orphan drug designation for LN-144 in the United States to treat malignant melanoma stages IIB-IV. This designation provides seven years of market exclusivity in the United States, subject to certain limited exceptions. However, the orphan drug designation does not convey any advantage in or shorten the duration of the regulatory review or approval process. On August 31, 2017, we were granted Fast Track designation by the U.S. Food and Drug Administration (FDA) for LN-144, TIL in advanced melanoma.

In addition to our ongoing trial in metastatic melanoma, we have initiated clinical trials of TIL therapy in cervical, and head and neck cancers. C-145-03 is a Phase 2, multicenter study that will enroll up to 47 patients and will assess the safety and efficacy of LN-145 for the treatment of patients with recurrent and/or metastatic squamous cell carcinoma of the head and neck. The trial has met the efficacy threshold for the first stage of the Simon’s two-stage design and will therefore continue to enroll patients to the full sample size of 47 per protocol. We anticipate reporting early data from this study in 2018. C-145-04 is a Phase 2, multicenter study, designed as a Simon’s two-stage design to enroll up to 47 patients and will assess the safety and efficacy of LN-145 for the treatment of patients with recurrent, metastatic, or persistent cervical carcinoma. The study is open for enrollment of patients in the United States and we anticipate the start of enrollment of patients in Europe in the first half of 2018. We have amended the protocol so that newly enrolled patients in both of these trials can be treated using TIL produced from our Gen 2 manufacturing process.

We are initiating our clinical development around non-small cell lung cancer (NSCLC) with two studies. One of the studies is an investigator sponsored study to be conducted at H. Lee Moffitt Cancer Center and Research Institute (Moffitt), and one will be sponsored by Iovance. We recently announced that patient enrollment has begun in the study in collaboration with researchers at Moffitt, Stand Up To Cancer, and other collaborators. Patients who are treatment naïve to prior anti-PD-1/ PD-L1 with stage IV or recurrent NSCLC will be enrolled in a study combining TIL and nivolumab. The Iovance sponsored Phase 2 study in NSCLC who are PD-1 and PD-L1 naïve, in collaboration with MedImmune, the global biologics research and development arm of AstraZeneca, will initiate in the first half of 2018. The study with MedImmune will allow for enrollment with LN-145 alone or in combination with durvalumab. In the future, we plan to initiate additional indications alone or through collaborations.

We are also initiating clinical trials as part of our strategic alliance with The University of Texas M.D. Anderson Cancer Center in multiple solid tumor cancers using two different TIL manufacturing processes, including our Gen 2 manufacturing process. These multi-arm clinical trials will evaluate the safety and efficacy of TIL therapy in ovarian cancer, various sarcomas, and pancreatic cancer, and are expected to begin enrollment in 2018.

In June 2017 we reincorporated from Nevada to Delaware, and changed our name from “Lion Biotechnologies, Inc.” to “Iovance Biotherapeutics, Inc.”

Our current product candidate pipeline is summarized in the graphic below:





Our current collaboration pipeline is summarized in the graphic below:



**Corporate Information**

Information concerning our company is contained in the documents that we file with the SEC as a reporting company under the Securities Exchange Act of 1934, as amended, which are accessible at [www.sec.gov](http://www.sec.gov), and on our website at [www.iovance.com](http://www.iovance.com). The public can also obtain copies of these filings by visiting the SEC’s Public Reference Room at 100 F Street NE, Washington D.C. 20549, or by calling the SEC at 1-800-SEC-0330. The information contained on, or that can be accessed through, our website is not a part of this prospectus. Investors should not rely on any such information in deciding whether to purchase our common stock. We have included our website address in this prospectus solely as an inactive textual reference. Information on our website is not, and should not be considered, part of this prospectus.

Our principal executive offices are located at 999 Skyway Road, Suite 150, San Carlos, California 94070, and our telephone number is (650) 260-7120.

**RISK FACTORS**

Investment in any securities offered pursuant to this prospectus and the applicable prospectus supplement involves a high degree of risk. Prior to making a decision about investing in our securities, you should carefully consider the risk factors described in our most recent Annual Report on Form 10-K and Quarterly Report on Form 10-Q and in any subsequent Quarterly Reports on Form 10-Q or Current Reports on Form 8-K that we file with the SEC after the date of this prospectus, all of which are incorporated by reference into this prospectus. You should also carefully review all other information contained in or incorporated by reference into this prospectus and the applicable prospectus supplement, including the information contained below under the heading “Cautionary Note Regarding Forward-Looking Statements,” as updated by our subsequent filings under the Securities Exchange Act of 1934, as amended. The occurrence of any of these risks might cause you to lose all or part of your investment in the offered securities.

**CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS**

This prospectus and the documents incorporated herein by reference contain forward-looking statements, and we anticipate that the applicable prospectus supplement will contain forward-looking statements. These statements relate to future events or to our future financial performance and involve known and unknown risks, uncertainties and other factors that may cause our actual results to be materially different from any future results expressed or implied by the forward-looking statements. In some cases, you can identify forward-looking statements by the use of words such as “believe,” “anticipate,” “intend,” “plan,” “estimate,” “may,” “could,” “anticipate,” “predict,” or “expect” and similar expressions. You should not place undue reliance on forward-looking statements since they involve known and unknown risks, uncertainties and other factors that are, in many cases, beyond our control. Forward-looking statements are not guarantees of future performance. Actual events or results may differ materially from those discussed in the forward-looking statements as a result of various factors. Except as required by applicable law, we do not undertake any obligation to publicly update any forward-looking statements, whether as a result of new information, future developments or otherwise.

Important factors that could cause actual results to differ materially from those reflected in our forward-looking statements include, among others:

- our inability to obtain regulatory approval for, or successfully commercialize, our leading product candidate, LN-144, or our other product candidates;
- difficulty in enrolling patients in our clinical trials and uncertainty of clinical trial results;
- our inability to control the timing and some of the research and development activities of our third-party research institution collaborators relating to our product candidates;
- our history of operating losses and inability to become profitable;
- uncertainty and volatility in the price of our common stock;
- the costs and effects of existing and potential governmental investigations and litigation;
- our inability to meet the continued listing requirements of The NASDAQ Global Market;
- our inability to implement and maintain appropriate internal controls;
- uncertainty as to our employees' and independent contractors' compliance with regulatory standards and requirements and securities insider trading rules;
- dependence on the efforts of third parties to conduct and oversee our clinical trials for our product candidates, to manufacture clinical supplies of our product candidates and to commercialize our product candidates;
- the effect of government regulations on our business;
- a loss of any of our key management personnel;
- our inability to secure and maintain relationships with collaborators and contract manufacturers;
- our inability to develop or commercialize our product candidates due to intellectual property rights held by third parties;
- our inability to protect the confidentiality, privacy, or security of our data or our trade secrets; and
- our potential inability to access capital required to fund proposed operations.

All written and verbal forward-looking statements attributable to us or any person acting on our behalf are expressly qualified in their entirety by the cautionary statements contained or referred to in this section. We caution investors not to rely too heavily on the forward-looking statements we make or that are made on our behalf.

In addition, you should refer to the documents we have incorporated by reference for a discussion of other important factors that may cause our actual results to differ materially from those expressed or implied by our forward-looking statements. As a result of these factors, we cannot assure you that the forward-looking statements will prove to be accurate. Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified time frame, or at all.

We may discuss certain of these risks and uncertainties in greater detail in any prospectus supplement under the heading “Risk Factors.” Additional cautionary statements or discussions of risks and uncertainties that could affect our results or the achievement of the expectations described in forward-looking statements may also be contained in the documents we incorporate by reference into this prospectus, including our most recent Annual Report on Form 10-K and our Quarterly Report on Form 10-Q filed with the SEC.

#### **RATIO OF EARNINGS TO FIXED CHARGES AND PREFERENCE DIVIDENDS**

The following table sets forth our ratio of earnings, if any, to fixed charges for each of the periods presented:

	Year Ended December 31,					Nine Months Ended September 30,
	2016	2015	2014	2013	2012	2017
	N/A	N/A	N/A	N/A	N/A	N/A
Ratio of earnings to fixed charges(1)	N/A	N/A	N/A	N/A	N/A	N/A

(1) For each of these periods, earnings were insufficient to cover fixed charges and combined fixed charges and preferred stock dividends. The amounts of the insufficiencies were \$52,894,000, \$27,660,000, \$12,035,000, \$25,382,000 and \$3,308,000 for the years ended December 31, 2016, 2015, 2014, 2013 and 2012, respectively, and \$66,210,000 for the nine months ended September 30, 2017. We did not pay or accrue any preference dividends for any of the periods presented above.

#### **USE OF PROCEEDS**

Unless we state otherwise in the applicable prospectus supplement, we intend to use the net proceeds from the sale of securities described in this prospectus for the further development of our product candidates and for general corporate purposes, which may include, among other things, reducing indebtedness, acquiring other companies (although we currently have no agreement to acquire any other company), purchasing other assets or lines of business, repurchasing our common stock and making capital expenditures, as well as for working capital. Until we use the net proceeds for these purposes, we intend to invest the net proceeds in investment-grade, interest-bearing securities. We have not determined the amounts we plan to spend on any of these areas or the timing of these expenditures. As a result, our management will have broad discretion regarding the application of the net proceeds from the sale of securities described in this prospectus.

#### **THE SECURITIES THAT WE MAY OFFER**

We, directly or through underwriters, dealers or agents designated by us from time to time, may offer, issue and sell, together or separately, up to \$250,000,000 in the aggregate of:

- shares of our common stock, par value \$0.000041666 per share;
- shares of our preferred stock, par value \$0.001 per share;
- debt securities;

- warrants to purchase shares of our common stock, shares of our preferred stock and/or our debt securities; and
- units consisting of two or more of the securities described above.

The common stock, the preferred stock, the debt securities, the warrants and the units collectively are referred to in this prospectus as the “securities.”

We have summarized below the material terms of the various types of securities that we may offer. We will describe in the applicable prospectus supplement the detailed terms of the securities offered by that supplement. If indicated in the prospectus supplement, the terms of the offered securities may differ from the terms summarized below.

**This prospectus may not be used to sell our securities unless it is accompanied by the applicable prospectus supplement.**

## DESCRIPTION OF SECURITIES

*The following is a summary of all material characteristics of our capital stock as set forth in our certificate of incorporation and bylaws, as amended. Copies of these documents are filed or incorporated by reference as exhibits to the registration statement, of which this prospectus forms a part.*

### DESCRIPTION OF COMMON STOCK

We are presently authorized to issue 150,000,000 shares of \$0.000041666 par value common stock. As of September 30, 2017, we had issued and outstanding 71,954,843 shares of common stock.

We have one class of common stock. Holders of our common stock are entitled to one vote per share on all matters to be voted upon by stockholders and do not have cumulative voting rights in the election of directors. Holders of shares of common stock are entitled to receive on a pro rata basis such dividends, if any, as may be declared from time to time by our board of directors in its discretion from funds legally available for that use, subject to any preferential dividend rights of outstanding preferred stock. They are also entitled to share on a pro rata basis in any distribution to our common stockholders upon our liquidation, dissolution or winding up, subject to the prior rights of any outstanding preferred stock. Common stockholders do not have preemptive rights to subscribe to any additional stock issuances by us, and they do not have the right to require the redemption of their shares or the conversion of their shares into any other class of our stock. The rights, preferences and privileges of holders of common stock are subject to, and may be adversely affected by, the rights of the holders of any series of preferred stock that we may designate and issue in the future.

The following provisions of our certificate of incorporation and bylaws could have the effect of delaying or discouraging another party from acquiring control of us and could encourage persons seeking to acquire control of us to first negotiate with our board of directors:

- our certificate of incorporation and bylaws prohibit our stockholders from filling board vacancies, calling special stockholder meetings or taking action by written consent;
- our certificate of incorporation and bylaws require advance written notice of stockholder proposals and director nominations;
- our certificate of incorporation requires any action instituted against our officers or directors in connection with their service to us to be brought in the state of Delaware.

- our bylaws provide that our board of directors will establish the authorized number of directors from time to time;
- our bylaws provide for the removal of a director only with cause and by the affirmative vote of the holders of at least two-thirds of the shares then entitled to vote at an election of our directors;
- our certificate of incorporation does not permit cumulative voting in the election of directors; and
- our certificate of incorporation permits our board of directors to determine the rights, privileges and preferences of any new series of preferred stock, some of which could impede the ability of a person to acquire control of our company.

The transfer agent and registrar of our common stock is Continental Stock Transfer and Trust Company. The address of our transfer agent and registrar is 7 Battery Place, 8th Floor New York, New York 10004, and its telephone number is (212) 509-4000.

Our common stock is traded on The NASDAQ Global Market under the symbol "IOVA."

#### **DESCRIPTION OF PREFERRED STOCK**

We have authority to issue 50,000,000 shares of preferred stock, par value \$0.001 per share. As of September 30, 2017, we had issued and outstanding 1,694 shares of Series A Convertible Preferred Stock (the "Series A Preferred") that are convertible into 847,000 shares of common stock, and 7,946,673 shares of Series B Preferred (the "Series B Preferred") that are convertible into 7,946,673 shares of common stock. There are no other series of shares of our preferred stock currently issued or outstanding. The rights and restrictions granted or imposed on the shares of the Series A Preferred and Series B Preferred are described below.

Under our certificate of incorporation, our board of directors has the authority, without further action by stockholders, to designate one or more series of preferred stock and to fix the voting powers, designations, preferences, limitations, restrictions and relative rights granted to or imposed upon the preferred stock, including dividend rights, conversion rights, voting rights, rights and terms of redemption, liquidation preference and sinking fund terms, any or all of which may be preferential to or greater than the rights of the common stock.

Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of the common stock. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring or preventing a change in our control and may adversely affect the market price of the common stock and the voting and other rights of the holders of common stock.

We will describe in a prospectus supplement relating to any series of preferred stock being offered the following terms:

- the distinguishing designation of the series of preferred stock;
- the number of shares of the series of preferred stock offered, the liquidation preference per share and the offering price of the series;
- the dividend rate(s), period(s) or payment date(s) or method(s) of calculation applicable to the series of preferred stock;

- whether dividends are cumulative or non-cumulative and, if cumulative, the date from which dividends on the series of preferred stock will accumulate;
- the procedures for any auction and remarketing, if any, for the series of preferred stock;
- the provisions for a sinking fund, if any, for the series of preferred stock;
- the provision for redemption, if applicable, of the series of preferred stock;
- any listing of the series of preferred stock on any securities exchange;
- the terms and conditions, if applicable, upon which the series of preferred stock will be convertible into common stock, including the conversion price or manner of calculation and conversion period;
- voting rights, if any, of the series of preferred stock;
- a discussion of any material or special U.S. federal income tax considerations applicable to the series of preferred stock;
- the relative ranking and preferences of the series of preferred stock as to dividend rights and rights upon the liquidation, dissolution or winding up of our affairs;
- any limitations on issuance of any series of preferred stock ranking senior to or on a parity with the series of preferred stock being offered as to dividend rights and rights upon liquidation, dissolution or winding up of our affairs; and
- any other specific terms, preferences, rights, limitations or restrictions of the series of preferred stock.

Unless we specify otherwise in the applicable prospectus supplement, the preferred stock will rank, relating to dividends and upon our liquidation, dissolution or winding up:

- senior to all classes or series of our common stock and to all of our equity securities ranking junior to the preferred stock;
- on a parity with all of our equity securities the terms of which specifically provide that the equity securities rank on a parity with the preferred stock; and
- junior to all of our equity securities the terms of which specifically provide that the equity securities rank senior to the preferred stock.

#### **Series A Preferred**

In October 2013, we created a new class of preferred stock designated as “Series A Convertible Preferred Stock.” The shares of Series A Preferred have a stated value of \$1,000 per share and are initially convertible into shares of common stock at a price of \$2.00 per share (subject to adjustment as described below). The rights of the Series A Preferred are set forth in the Certificate of Designation Of Preferences And Rights Of Series A Convertible Preferred Stock (the “Series A Certificate of Designation”), which gives the holders of the Series A Preferred the following rights, preferences and privileges:

The Series A Preferred may, at the option of the holder, be converted at any time or from time to time into fully paid and non-assessable shares of common stock at the conversion price in effect at the time of conversion; provided, that a holder of Series A Preferred may at any given time convert only up to that number of shares of Series A Preferred so that, upon conversion, the aggregate beneficial ownership of the common stock (calculated pursuant to Rule 13d-3 of the Exchange Act) of such holder and all persons affiliated with such holder, is not more than 4.99% of the common stock then outstanding (subject to adjustment up to 9.99% solely at the holder's discretion upon 60 days' prior notice). The number of shares into which one share of Series A Preferred shall be convertible is determined by dividing the stated value of \$1,000 per share by the initial Conversion Price. The "Conversion Price" per share for the Series A Preferred is initially equal to \$2.00 (subject to appropriate adjustment for certain events, including stock splits, stock dividends, combinations, recapitalizations or other recapitalizations affecting the Series A Preferred).

The Series A Preferred will automatically be converted into common stock at the then-applicable Conversion Price (1) upon the written consent of the holders holding at least a majority of the outstanding shares of Series A Preferred or (2) if required by us to be able to list our common stock on a national securities exchange; provided, any such conversions will continue to be limited by, and subject to the beneficial ownership conversion limitations set forth above.

Except as otherwise required by law, the holders of shares of Series A Preferred do not have the right to vote on matters that come before the stockholders; provided, that we may not, without the prior written consent of a majority of the outstanding Series A Preferred: (1) amend, alter, or repeal any provision of our certificate of incorporation (including the Series A Certificate of Designation) or Bylaws in a manner adverse to the Series A Preferred; (2) create or authorize the creation of or issue any other security convertible into or exercisable for any equity security, having rights, preferences or privileges senior to or on parity with the Series A Preferred, or increase the authorized number of shares of Series A Preferred; or (3) enter into any agreement with respect to any of the foregoing.

In the event of any dissolution or winding up of our company, whether voluntary or involuntary, the proceeds would be paid *pari passu* among the holders of shares of our common stock, Series A Preferred and Series B Preferred, pro rata based on the number of shares held by each such holder, treating for this purpose all such securities as if they had been converted to common stock.

We may not declare, pay or set aside any dividends on shares of any class or series of our capital stock (other than dividends on shares of common stock payable in shares of common stock) unless the holders of the Series A Preferred shall first receive, or simultaneously receive, an equal dividend on each outstanding share of Series A Preferred.

#### **Series B Preferred**

In June 2016, we created a new class of Preferred Stock designated as "Series B Preferred Stock." The rights of the Series B Preferred are set forth in the Certificate of Designation of Preferences and Rights of Series B Preferred Stock (the "Series B Certificate of Designation"). A total of 11,500,000 shares of Series B Preferred are authorized for issuance under Series B Certificate of Designation. The shares of Series B Preferred have a stated value of \$4.75 per share and are convertible into shares of our common stock at a conversion price of \$4.75 per share, subject to certain adjustments.

Holders of Series B Preferred are entitled to dividends on an as-if-converted basis in the same form as any dividends actually paid on shares of our Series A Preferred or other securities. So long as any Series B Preferred remains outstanding, we may not redeem, purchase or otherwise acquire any material amount of our Series A Preferred or other securities.

The shares of Series B Preferred are convertible, at the option of each holder, at any time or from time to time into shares of our common stock at the conversion price in effect at the time of conversion, except that, subject to certain limited exceptions, no holder of Series B Preferred may convert the Series B Preferred if, after giving effect to the conversion, the holder and all affiliated persons would own beneficially more than 4.99% of our common stock (subject to adjustment to up to 9.99% solely at the holder's discretion upon 61 days' prior notice to us). The conversion price of \$4.75 is subject to appropriate adjustment in the event of a stock split, stock dividend, combination or other recapitalization affecting our common stock.

Holders of a majority of the outstanding shares of Series B Preferred are entitled to elect to convert all of the outstanding shares of the Series B Preferred into shares of common stock, subject to the beneficial ownership limitations of each holder set forth above.

Except as otherwise required by law, the holders of Series B Preferred have no right to vote on matters submitted to a vote of our stockholders. Without the prior written consent of a majority of the outstanding shares of Series B Preferred, however, we may not: (i) amend our certificate of incorporation (including the Series B Certificate of Designation) in a manner adverse to the Series B Preferred; (ii) create or authorize the creation of any other security convertible into or exercisable for any equity security ranking as to dividends, redemption or distribution of assets upon a liquidation senior to, the Series B Preferred, or increase the authorized number of shares of Series B Preferred; or (iii) enter into any agreement with respect to any of the foregoing.

In the event of the dissolution and winding up of our company, the proceeds available for distribution to our stockholders would be paid *pari passu* among the holders of shares of our common stock, Series A Preferred and Series B Preferred, pro rata based upon the number of shares held by each such holder, treating for this purpose all such securities as if they had been converted into our common stock.

#### DESCRIPTION OF DEBT SECURITIES

The following is a general description of the terms of debt securities we may issue from time to time unless we provide otherwise in the applicable prospectus supplement. Particular terms of any debt securities we offer will be described in the prospectus supplement relating to such debt securities.

As required by Federal law for all bonds and notes of companies that are publicly offered, any debt securities we issue will be governed by a document called an “indenture,” the form of which is filed as an exhibit to the registration statement of which this prospectus forms a part. We have summarized the general features of the debt securities to be governed by the indenture. The summary is not complete. An indenture is a contract between us and a financial institution acting as trustee on behalf of the holders of the debt securities, and is subject to and governed by the Trust Indenture Act of 1939, as amended. The trustee has two main roles. First, the trustee can enforce holders’ rights against us if we default. There are some limitations on the extent to which the trustee acts on holders’ behalf, described in the second paragraph under “Description of Debt Securities—Events of Default.” Second, the trustee performs certain administrative duties, such as sending interest and principal payments to holders.

Because this section is a summary, it does not describe every aspect of any debt securities we may issue or the indenture governing any such debt securities. Particular terms of any debt securities we offer will be described in the prospectus supplement relating to such debt securities, and we urge you to read the applicable executed indenture, which will be filed with the SEC at the time of any offering of debt securities, because it, and not this description, will define the rights of holders of such debt securities.

A prospectus supplement will describe the particular terms of any series of debt securities we may issue, including some or all of the following:

- the designation or title of the series of debt securities;
- the total principal amount of the series of debt securities, the denominations in which the offered debt securities will be issued and whether the offering may be reopened for additional securities of that series and on what terms;
- the percentage of the principal amount at which the series of debt securities will be offered;



- the date or dates on which principal will be payable;
- the rate or rates (which may be either fixed or variable) and/or the method of determining such rate or rates of interest, if any;
- the date or dates from which any interest will accrue, or the method of determining such date or dates, and the date or dates on which any interest will be payable;
- the terms for redemption, extension or early repayment, if any;
- the currencies in which the series of debt securities are issued and payable;
- whether the amount of payments of principal, interest or premium, if any, on a series of debt securities will be determined with reference to an index, formula or other method and how these amounts will be determined;
- the place or places of payment, transfer, conversion and/or exchange of the debt securities;
- the provision for any sinking fund;
- any restrictive covenants;
- events of default;
- whether the series of debt securities are issuable in certificated form;
- any provisions for legal defeasance or covenant defeasance;
- whether and under what circumstances we will pay additional amounts in respect of any tax, assessment or governmental charge and, if so, whether we will have the option to redeem the debt securities rather than pay the additional amounts (and the terms of this option);
- any provisions for convertibility or exchangeability of the debt securities into or for any other securities;
- whether the debt securities are subject to subordination and the terms of such subordination;
- any listing of the debt securities on any securities exchange;
- if applicable, a discussion of certain U.S. Federal income tax considerations, including those related to original issue discount, if applicable; and
- any other material terms.

The debt securities may be secured or unsecured obligations. Unless the prospectus supplement states otherwise, principal, interest and premium, if any, will be paid by us in immediately available funds.

## General

The indenture may provide that any debt securities proposed to be sold under this prospectus and the applicable prospectus supplement relating to such debt securities (“offered debt securities”) and any debt securities issuable upon conversion or exchange of other offered securities (“underlying debt securities”) may be issued under the indenture in one or more series.

For purposes of this prospectus, any reference to the payment of principal of, or interest or premium, if any, on, debt securities will include additional amounts if required by the terms of the debt securities.

Debt securities issued under an indenture, when a single trustee is acting for all debt securities issued under the indenture, are called the “indenture securities.” The indenture may also provide that there may be more than one trustee thereunder, each with respect to one or more different series of securities issued thereunder. See “Description of Debt Securities—Resignation of Trustee” below. At a time when two or more trustees are acting under an indenture, each with respect to only certain series, the term “indenture securities” means the one or more series of debt securities with respect to which each respective trustee is acting. In the event that there is more than one trustee under an indenture, the powers and trust obligations of each trustee described in this prospectus will extend only to the one or more series of indenture securities for which it is trustee. If two or more trustees are acting under an indenture, then the indenture securities for which each trustee is acting would be treated as if issued under separate indentures.

We refer you to the applicable prospectus supplement relating to any debt securities we may issue from time to time for information with respect to any deletions from, modifications of or additions to the Events of Default or covenants that are described below, including any addition of a covenant or other provision providing event risk or similar protection, that will be applicable with respect to such debt securities.

We have the ability to issue indenture securities with terms different from those of indenture securities previously issued and, without the consent of the holders thereof, to reopen a previous issue of a series of indenture securities and issue additional indenture securities of that series unless the reopening was restricted when that series was created.

### **Conversion and Exchange**

If any debt securities are convertible into or exchangeable for other securities, the related prospectus supplement will explain the terms and conditions of the conversion or exchange, including the conversion price or exchange ratio (or the calculation method), the conversion or exchange period (or how the period will be determined), if conversion or exchange will be mandatory or at the option of the holder or us, provisions for adjusting the conversion price or the exchange ratio and provisions affecting conversion or exchange in the event of the redemption of the underlying debt securities. These terms may also include provisions under which the number or amount of other securities to be received by the holders of the debt securities upon conversion or exchange would be calculated according to the market price of the other securities as of a time stated in the prospectus supplement.

### **Payment and Paying Agents**

We will pay interest to the person listed in the applicable trustee's records as the owner of the debt security at the close of business on a particular day in advance of each due date for interest, even if that person no longer owns the debt security on the interest due date. That day, often approximately two weeks in advance of the interest due date, is called the "record date." Because we will pay all the interest for an interest period to the holders on the record date, holders buying and selling debt securities must work out between themselves the appropriate purchase price. The most common manner is to adjust the sales price of the debt securities to prorate interest fairly between buyer and seller based on their respective ownership periods within the particular interest period. This prorated interest amount is called "accrued interest."

### **Events of Default**

Holders of debt securities of any series will have rights if an Event of Default occurs in respect of the debt securities of such series and is not cured, as described later in this subsection. The term "Event of Default" in respect of the debt securities of any series means any of the following:

- we do not pay the principal of, or any premium on, a debt security of the series on its due date;
- we do not pay interest on a debt security of the series within 30 days of its due date;
- we do not deposit any sinking fund payment in respect of debt securities of the series on its due date and we do not cure this default within five days;
- we remain in breach of a covenant in respect of debt securities of the series for 90 days after we receive a written notice of default stating we are in breach. The notice must be sent by either the trustee or holders of at least 25% of the principal amount of debt securities of the series;
- we file for bankruptcy or certain other events of bankruptcy, insolvency or reorganization occur; and

- any other Event of Default occurs in respect of debt securities of the series described in the prospectus supplement.

An Event of Default for a particular series of debt securities does not necessarily constitute an Event of Default for any other series of debt securities issued under the same or any other indenture. The trustee may withhold notice to the holders of debt securities of any default, except in the payment of principal, premium or interest, if it considers the withholding of notice to be in the best interests of the holders.

#### ***Remedies if an Event of Default Occurs***

If an Event of Default has occurred and has not been cured or waived, the trustee or the holders of not less than 25% in principal amount of the debt securities of the affected series may declare the entire principal amount of all the debt securities of that series to be due and immediately payable. This is called a declaration of acceleration of maturity. A declaration of acceleration of maturity may be canceled by the holders of a majority in principal amount of the debt securities of the affected series if the default is cured or waived and certain other conditions are satisfied.

Except in cases of default, where the trustee has some special duties, the trustee typically is not required to take any action under an indenture at the request of any holders unless the holders offer the trustee reasonable protection from expenses and liability (called an “indemnity”). If reasonable indemnity is provided, the holders of a majority in principal amount of the outstanding debt securities of the relevant series may direct the time, method and place of conducting any lawsuit or other formal legal action seeking any remedy available to the trustee. The trustee may refuse to follow those directions in certain circumstances.

Before a holder is allowed to bypass the trustee and bring its own lawsuit or other formal legal action or take other steps to enforce its rights or protect its interests relating to any debt securities, the following must occur:

- the holder must give the trustee written notice that an Event of Default has occurred and remains uncured;
- the holders of at least 25% in principal amount of all outstanding debt securities of the relevant series must make a written request that the trustee take action because of the default and must offer reasonable indemnity to the trustee against the cost and other liabilities of taking that action;
- the trustee must not have taken action for 60 days after receipt of the above notice and offer of indemnity; and
- the holders of a majority in principal amount of the debt securities must not have given the trustee a direction inconsistent with the above notice during that 60-day period.

However, a holder is entitled at any time to bring a lawsuit for the payment of money due on its debt securities on or after the due date. Each year, we will furnish to each trustee a written statement of certain of our officers certifying that to their knowledge we are in compliance with the indenture and the debt securities, or else specifying any default.

#### ***Waiver of Default***

The holders of a majority in principal amount of the relevant series of debt securities may waive a default for all such series of debt securities. If this happens, the default will be treated as if it had not occurred. No one can waive a payment default on a holder’s debt security, however, without the holder’s approval.

## **Merger or Consolidation**

Under the terms of an indenture, we may be permitted to consolidate or merge with another entity. We may also be permitted to sell all or substantially all of our assets to another entity. However, typically we may not take any of these actions unless all the following conditions are met:

- if we do not survive such transaction or we convey, transfer or lease our properties and assets substantially as an entirety, the acquiring company must be a corporation, limited liability company, partnership or trust, or other corporate form, organized under the laws of any state of the United States or the District of Columbia, and such company must agree to be legally responsible for our debt securities, and, if not already subject to the jurisdiction of any state of the United States or the District of Columbia, the new company must submit to such jurisdiction for all purposes with respect to the debt securities and appoint an agent for service of process;
- alternatively, we must be the surviving company;
- immediately after the transaction no Event of Default will exist;
- we must deliver certain certificates and documents to the trustee; and
- we must satisfy any other requirements specified in the prospectus supplement relating to a particular series of debt securities.

## **Modification or Waiver**

There are three types of changes we may make to an indenture and the debt securities issued thereunder.

### ***Changes Requiring Approval***

First, there are changes that we cannot make to debt securities without specific approval of all of the holders. The following is a list of the types of changes that may require specific approval:

- change the stated maturity of the principal or rate of interest on a debt security;
- reduce any amounts due on a debt security;
- reduce the amount of principal payable upon acceleration of the maturity of a security following a default;
- at any time after a change of control has occurred, reduce any premium payable upon a change of control;
- change the place or currency of payment on a debt security (except as otherwise described in the prospectus or prospectus supplement);
- impair the right of holders to sue for payment;
- adversely affect any right to convert or exchange a debt security in accordance with its terms;
- reduce the percentage of holders of debt securities whose consent is needed to modify or amend the indenture;
- reduce the percentage of holders of debt securities whose consent is needed to waive compliance with certain provisions of the indenture or to waive certain defaults;
- modify any other aspect of the provisions of the indenture dealing with supplemental indentures, modification and waiver of past defaults, changes to the quorum or voting requirements or the waiver of certain covenants; and
- change any obligation we have to pay additional amounts.

### ***Changes Not Requiring Approval***

The second type of change does not require any vote by the holders of the debt securities. This type is limited to clarifications and certain other changes that would not adversely affect holders of the outstanding debt securities in any material respect, including the addition of covenants and guarantees. We also do not need any approval to make any change that affects only debt securities to be issued under the indenture after the change takes effect.

### ***Changes Requiring Majority Approval***

Any other change to the indenture and the debt securities may require the following approval:

- if the change affects only one series of debt securities, it must be approved by the holders of a majority in principal amount of that series; and
- if the change affects more than one series of debt securities issued under the same indenture, it must be approved by the holders of a majority in principal amount of all of the series affected by the change, with all affected series voting together as one class for this purpose.

The holders of a majority in principal amount of all of the series of debt securities issued under an indenture, voting together as one class for this purpose, may waive our compliance obligations with respect to some of our covenants in that indenture. However, we cannot obtain a waiver of a payment default or of any of the matters covered by the bullet points included above under “Description of Debt Securities—Modification or Waiver—Changes Requiring Approval.”

### ***Further Details Concerning Voting***

When taking a vote on proposed changes to the indenture and the debt securities, we expect to use the following rules to decide how much principal to attribute to a debt security:

- for original issue discount securities, we will use the principal amount that would be due and payable on the voting date if the maturity of these debt securities were accelerated to that date because of a default;
- for debt securities whose principal amount is not known (for example, because it is based on an index), we will use a special rule for that debt security described in the related prospectus supplement; and
- for debt securities denominated in one or more foreign currencies, we will use the U.S. dollar equivalent.

Debt securities will not be considered outstanding, and therefore not eligible to vote, if we have deposited or set aside in trust money for their payment or redemption. Debt securities will also not be eligible to vote if they have been fully defeased as described later under “Description of Debt Securities—Defeasance—Legal Defeasance.”

We generally will be entitled to set any day as a record date for the purpose of determining the holders of outstanding indenture securities that are entitled to vote or take other action under the indenture. If we set a record date for a vote or other action to be taken by holders of one or more series, that vote or action may be taken only by persons who are holders of outstanding indenture securities of those series on the record date and must be taken within 11 months following the record date.

Book-entry and other indirect holders will need to consult their banks or brokers for information on how approval may be granted or denied if we seek to change the indenture or the debt securities or request a waiver.

### **Defeasance**

The following provisions will be applicable to each series of debt securities unless we state in the applicable prospectus supplement that the provisions of covenant defeasance and legal defeasance will not be applicable to that series.

### ***Covenant Defeasance***

We can make the deposit described below and be released from some of the restrictive covenants in the indenture under which the particular series was issued. This is called “covenant defeasance.” In that event, the holders would lose the protection of those restrictive covenants but would gain the protection of having money and government securities set aside in trust to repay holders’ debt securities. If applicable, a holder also would be released from the subordination provisions described under “Description of Debt Securities—Indenture Provisions—Subordination” below. In order to achieve covenant defeasance, we must do the following:

- If the debt securities of the particular series are denominated in U.S. dollars, we must deposit in trust for the benefit of all holders of such debt securities a combination of money and U.S. government or U.S. government agency notes or bonds that will generate enough cash to make interest, principal and any other payments on the debt securities on their various due dates;
- We may be required to deliver to the trustee a legal opinion of our counsel confirming that, under current U.S. Federal income tax law, we may make the above deposit without causing the holders to be taxed on the debt securities any differently than if we did not make the deposit and just repaid the debt securities ourselves at maturity; and
- We must deliver to the trustee certain documentation stating that all conditions precedent to covenant defeasance have been complied with.

If we accomplish covenant defeasance, holders can still look to us for repayment of the debt securities if there were a shortfall in the trust deposit or the trustee is prevented from making payment. In fact, if one of the remaining Events of Default occurred (such as our bankruptcy) and the debt securities became immediately due and payable, there might be a shortfall. Depending on the event causing the default, holders may not be able to obtain payment of the shortfall.

### ***Legal Defeasance***

As described below, we can legally release ourselves from all payment and other obligations on the debt securities of a particular series (called “legal defeasance”), (1) if there is a change in U.S. Federal tax law that allows us to effect the release without causing the holders to be taxed any differently than if the release had not occurred, and (2) if we put in place the following other arrangements for holders to be repaid:

- If the debt securities of the particular series are denominated in U.S. dollars, we must deposit in trust for the benefit of all holders of such debt securities a combination of money and U.S. government or U.S. government agency notes or bonds that will generate enough cash to make interest, principal and any other payments on the debt securities on their various due dates;
- We may be required to deliver to the trustee a legal opinion confirming that there has been a change in current U.S. Federal tax law or an Internal Revenue Service ruling that allows us to make the above deposit without causing the holders to be taxed on the debt securities any differently than if we did not make the deposit and just repaid the debt securities ourselves at maturity. Under current U.S. Federal tax law, the deposit and our legal release from the debt securities would be treated as though we paid each holder its share of the cash and notes or bonds at the time the cash and notes or bonds were deposited in trust in exchange for its debt securities and holders would recognize gain or loss on the debt securities at the time of the deposit; and
- We must deliver to the trustee a legal opinion and officers’ certificate stating that all conditions precedent to legal defeasance have been complied with.

If we ever did accomplish legal defeasance, as described above, holders would have to rely solely on the trust deposit for repayment of the debt securities. Holders could not look to us for repayment in the unlikely event of any shortfall. Conversely, the trust deposit would most likely be protected from claims of our lenders and other creditors if we ever became bankrupt or insolvent. If applicable, holders would also be released from the subordination provisions described later under “Description of Debt Securities—Indenture Provisions—Subordination.”

## Resignation of Trustee

Each trustee may resign or be removed with respect to one or more series of indenture securities provided that a successor trustee is appointed to act with respect to such series. In the event that two or more persons are acting as trustee with respect to different series of indenture securities under the indenture, each of the trustees will be a trustee of a trust separate and apart from the trust administered by any other trustee.

## Indenture Provisions—Subordination

Upon any distribution of our assets upon our dissolution, winding up, liquidation or reorganization, the payment of the principal of (and premium, if any) and interest on any indenture securities denominated as subordinated debt securities is to be subordinated to the extent provided in the indenture in right of payment to the prior payment in full of all Senior Indebtedness (defined below), but our obligation to holders to make payment of the principal of (and premium, if any) and interest on such subordinated debt securities will not otherwise be affected. In addition, no payment on account of principal (or premium, if any), interest or sinking fund, if any, may be made on such subordinated debt securities at any time unless full payment of all amounts due in respect of the principal (and premium, if any), interest and sinking fund, if any, on Senior Indebtedness has been made or duly provided for in money or money's worth.

In the event that, notwithstanding the foregoing, any payment from us is received by the trustee in respect of subordinated debt securities or by the holders of any of such subordinated debt securities before all Senior Indebtedness is paid in full, the payment or distribution must be paid over to the holders of the Senior Indebtedness or on their behalf for application to the payment of all the Senior Indebtedness remaining unpaid until all the Senior Indebtedness has been paid in full, after giving effect to any concurrent payment or distribution to the holders of the Senior Indebtedness. Subject to the payment in full of all Senior Indebtedness, the holders of such subordinated debt securities will be subrogated to the rights of the holders of the Senior Indebtedness to the extent of payments made to the holders of the Senior Indebtedness out of the distributive share of such subordinated debt securities.

By reason of this subordination, in the event of a distribution of our assets upon our insolvency, certain of our senior creditors may recover more, ratably, than holders of any subordinated debt securities. The related indenture will provide that these subordination provisions will not apply to money and securities held in trust under the defeasance provisions of the indenture.

“Senior Indebtedness” will be defined in an applicable indenture as the principal of (and premium, if any) and unpaid interest on:

- our indebtedness (including indebtedness of others guaranteed by us), whenever created, incurred, assumed or guaranteed, for money borrowed (other than indenture securities issued under the indenture and denominated as subordinated debt securities), unless in the instrument creating or evidencing the same or under which the same is outstanding it is provided that this indebtedness is not senior or prior in right of payment to the subordinated debt securities; and
- renewals, extensions, modifications and refinancings of any of such indebtedness.

The prospectus supplement accompanying any series of indenture securities denominated as subordinated debt securities will set forth the approximate amount of our Senior Indebtedness outstanding as of a recent date.

## Trustee

We intend to name the indenture trustee for each series of indenture securities in the related prospectus supplement.

## Certain Considerations Relating to Foreign Currencies

Debt securities denominated or payable in foreign currencies may entail significant risks. These risks include the possibility of significant fluctuations in the foreign currency markets, the imposition or modification of foreign exchange controls and potential illiquidity in the secondary market. These risks will vary depending upon the currency or currencies involved and will be more fully described in the applicable prospectus supplement.

## DESCRIPTION OF WARRANTS

We may issue warrants for the purchase of shares of our common stock, preferred stock or debt securities. We may issue warrants independently or together with other securities, and the warrants may be attached to or separate from any offered securities. If a series of warrants will be issued under a separate warrant agreement to be entered into between us and the investors or a warrant agent, we will so specify in the applicable prospectus supplement. The following summary of the material provisions of the warrants and warrant agreements is subject to, and qualified in its entirety by reference to, all the provisions of the warrants and any warrant agreement applicable to a particular series of warrants. The terms of any warrants offered under a prospectus supplement may differ from the terms described below. We urge you to read the applicable prospectus supplement, as well as the complete warrants and warrant agreements that contain the terms of the warrants.

The material terms of any issue of warrants will be described in the prospectus supplement relating to the issue. Those terms may include:

- the number of shares of common stock or preferred stock purchasable upon the exercise of warrants to purchase such shares and the price at which such number of shares may be purchased upon such exercise;
- a summary of the designation and terms (including, without limitation, liquidation, dividend, conversion and voting rights) of the series of preferred stock purchasable upon exercise of warrants to purchase preferred stock as set forth in the certificate of designation for such series of preferred stock;
- the principal amount of debt securities that may be purchased upon exercise of a debt warrant and the exercise price for the warrants, which may be payable in cash, securities or other property;
- the date, if any, on and after which the warrants and the related debt securities, preferred stock or common stock will be separately transferable;
- the terms of any rights to redeem or call the warrants;
- the date on which the right to exercise the warrants will commence and the date on which the right will expire;
- U.S. federal income tax consequences applicable to the warrants; and
- any additional terms of the warrants, including terms, procedures, and limitations relating to the exchange, exercise and settlement of the warrants.

Each warrant will entitle its holder to purchase the principal amount of debt securities or the number of shares of preferred stock or common stock at the exercise price set forth in, or calculable as set forth in, the applicable prospectus supplement. Unless we otherwise specify in the applicable prospectus supplement, holders of the warrants may exercise the warrants at any time up to the specified time on the expiration date that we set forth in the applicable prospectus supplement. After the close of business on the expiration date, unexercised warrants will become void.



A holder of warrant certificates may exchange them for new warrant certificates of different denominations, present them for registration of transfer and exercise them at the corporate trust office of the warrant agent or any other office indicated in the applicable prospectus supplement. Until any warrants to purchase debt securities are exercised, the holder of the warrants will not have any rights of holders of the debt securities that can be purchased upon exercise, including any rights to receive payments of principal, premium or interest on the underlying debt securities or to enforce covenants in the applicable indenture. Until any warrants to purchase common stock or preferred stock are exercised, the holders of the warrants will not have any rights of holders of the underlying common stock or preferred stock, including any rights to receive dividends or payments upon any liquidation, dissolution or winding up on the common stock or preferred stock, if any.

### **DESCRIPTION OF UNITS**

We may issue units consisting of any combination of the other types of securities offered under this prospectus in one or more series. We may elect to evidence each series of units by unit certificates that we will issue under a separate unit agreement. We may enter into unit agreements with a unit agent. Each unit agent will be a bank or trust company that we select. We will indicate the name and address of the unit agent in the applicable prospectus supplement relating to a particular series of units.

The following description, together with the additional information included in any applicable prospectus supplement, summarizes the general features of the units that we may offer under this prospectus. You should read any prospectus supplement related to the series of units being offered, as well as the complete unit agreements that contain the terms of the units. Specific unit agreements will contain additional important terms, and we will file as an exhibit to the registration statement of which this prospectus is a part, or will incorporate by reference from another report that we file with the SEC, the form of each unit agreement relating to units offered under this prospectus.

If we offer any units, certain terms of that series of units will be described in the applicable prospectus supplement, including, without limitation, the following, as applicable:

- the title of the series of units;
- identification and description of the separate constituent securities comprising the units;
- the price or prices at which the units will be issued;
- the date, if any, on and after which the constituent securities comprising the units will be separately transferable;
- a discussion of certain U.S. federal income tax considerations applicable to the units; and
- any other material terms of the units and their constituent securities.

### **PLAN OF DISTRIBUTION**

We may sell the securities covered by this prospectus from time to time pursuant to underwritten public offerings, negotiated transactions, block trades or a combination of these methods or through underwriters or dealers, through agents and/or directly to one or more purchasers. The securities may be distributed from time to time in one or more transactions:

- at a fixed price or prices, which may be changed;
- at market prices prevailing at the time of sale;

- at prices related to such prevailing market prices; or
- at negotiated prices.

Each time that we sell securities covered by this prospectus, we will provide a prospectus supplement or supplements that will describe the method of distribution and set forth the terms and conditions of the offering of such securities, including the offering price of the securities and the proceeds to us, if applicable.

Offers to purchase the securities being offered by this prospectus may be solicited directly. Agents may also be designated to solicit offers to purchase the securities from time to time. Any agent involved in the offer or sale of our securities will be identified in a prospectus supplement.

If a dealer is utilized in the sale of the securities being offered by this prospectus, the securities will be sold to the dealer, as principal. The dealer may then resell the securities to the public at varying prices to be determined by the dealer at the time of resale.

If an underwriter is utilized in the sale of the securities being offered by this prospectus, an underwriting agreement will be executed with the underwriter at the time of sale and the name of any underwriter will be provided in the prospectus supplement that the underwriter will use to make resales of the securities to the public. In connection with the sale of the securities, we or the purchasers of securities for whom the underwriter may act as agent, may compensate the underwriter in the form of underwriting discounts or commissions. The underwriter may sell the securities to or through dealers, and those dealers may receive compensation in the form of discounts, concessions or commissions from the underwriters and/or commissions from the purchasers for which they may act as agent. Unless otherwise indicated in a prospectus supplement, an agent will be acting on a best efforts basis and a dealer will purchase securities as a principal, and may then resell the securities at varying prices to be determined by the dealer.

Any compensation paid to underwriters, dealers or agents in connection with the offering of the securities, and any discounts, concessions or commissions allowed by underwriters to participating dealers, will be described in the applicable prospectus supplement. Underwriters, dealers and agents participating in the distribution of the securities may be deemed to be underwriters within the meaning of the Securities Act of 1933, as amended (the "Securities Act"), and any discounts and commissions received by them and any profit realized by them on resale of the securities may be deemed to be underwriting discounts and commissions. We may enter into agreements to indemnify underwriters, dealers and agents against civil liabilities, including liabilities under the Securities Act, or to contribute to payments they may be required to make in respect thereof and to reimburse those persons for certain expenses.

Any common stock issued by us will be traded on The NASDAQ Global Market unless we specify otherwise in the prospectus supplement, but any other securities may or may not be publicly traded or listed on a national securities exchange. To facilitate the offering of securities, certain persons participating in the offering may engage in transactions that stabilize, maintain or otherwise affect the price of the securities. This may include over-allotments or short sales of the securities, which involve the sale by persons participating in the offering of more securities than were sold to them. In these circumstances, these persons would cover such over-allotments or short positions by making purchases in the open market or by exercising their over-allotment option, if any. In addition, these persons may stabilize or maintain the price of the securities by bidding for or purchasing securities in the open market or by imposing penalty bids, whereby selling concessions allowed to dealers participating in the offering may be reclaimed if securities sold by them are repurchased in connection with stabilization transactions. The effect of these transactions may be to stabilize or maintain the market price of the securities at a level above that which might otherwise prevail in the open market. These transactions may be discontinued at any time.

If indicated in the applicable prospectus supplement, underwriters or other persons acting as agents may be authorized to solicit offers by institutions or other suitable purchasers to purchase the securities at the public offering price set forth in the prospectus supplement, pursuant to delayed delivery contracts providing for payment and delivery on the date or dates stated in the prospectus supplement. These purchasers may include, among others, commercial and savings banks, insurance companies, pension funds, investment companies and educational and charitable institutions. Delayed delivery contracts will be subject to the condition that the purchase of the securities covered by the delayed delivery contracts will not at the time of delivery be prohibited under the laws of any jurisdiction in the United States to which the purchaser is subject. The underwriters and agents will not have any responsibility with respect to the validity or performance of these contracts.

We may engage in at-the-market offerings into an existing trading market in accordance with Rule 415(a)(4) under the Securities Act. In addition, we may enter into derivative transactions with third parties, or sell securities not covered by this prospectus to third parties in privately negotiated transactions. If the applicable prospectus supplement so indicates, in connection with those derivatives, the third parties may sell securities covered by this prospectus and the applicable prospectus supplement, including in short sale transactions. If so, the third party may use securities pledged by us or borrowed from us or others to settle those sales or to close out any related open borrowings of stock, and may use securities received from us in settlement of those derivatives to close out any related open borrowings of stock. The third party in such sale transactions will be an underwriter and, if not identified in this prospectus, will be named in the applicable prospectus supplement. In addition, we may otherwise loan or pledge securities to a financial institution or other third party that in turn may sell the securities short using this prospectus and an applicable prospectus supplement. Such financial institution or other third party may transfer its economic short position to investors in our securities or in connection with a concurrent offering of other securities.

The specific terms of any lock-up provisions in respect of any given offering will be described in the applicable prospectus supplement.

The underwriters, dealers and agents may engage in transactions with us, or perform services for us, in the ordinary course of business for which they receive compensation.

## **LEGAL MATTERS**

The validity of the securities offered by this prospectus has been passed upon for us by TroyGould PC, Los Angeles, California, and Morgan, Lewis & Bockius LLP, New York, New York. Some of the attorneys at TroyGould PC own shares of our common stock constituting in the aggregate less than 1% of our outstanding shares of common stock. Additional legal matters may be passed upon for us or any underwriters, dealers or agents by counsel that we will name in the applicable prospectus supplement.

## **EXPERTS**

Our financial statements as of December 31, 2016 and for the year then ended, and management's assessment of the effectiveness of internal control over financial reporting as of December 31, 2016 incorporated by reference into this prospectus have been so incorporated in reliance on the reports of Marcum LLP, independent registered public accounting firm, upon the authority of said firm as experts in auditing and accounting.

Our financial statements as of December 31, 2015 and 2014 and for the years then ended, incorporated by reference into this prospectus have been so incorporated in reliance on the reports of Weinberg & Company, P.A., independent registered public accounting firm, upon the authority of said firm as experts in auditing and accounting.

## WHERE YOU CAN FIND MORE INFORMATION

We are subject to the information and periodic reporting requirements of the Securities Exchange Act of 1934, as amended (the "Exchange Act") and, in accordance with that act, file periodic reports and other information with the SEC. The periodic reports and other information filed by us are available for inspection and copying at prescribed rates 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 further information about the operation of the SEC's Public Reference Room. The SEC also maintains an Internet site that contains all reports and other information that we file electronically with the SEC. The address of that website is [www.sec.gov](http://www.sec.gov).

This prospectus is part of a registration statement on Form S-3 that we have filed with the SEC under the Securities Act for the securities offered under this prospectus (the "Form S-3 Registration Statement"). The Form S-3 Registration Statement, including the exhibits to the Form S-3 Registration Statement, contains additional information about us and the securities offered by this prospectus. The rules and regulations of the SEC allow us to omit from this prospectus certain information that is included in the Form S-3 Registration Statement. For further information about us and our securities, you should review the Form S-3 Registration Statement and the exhibits filed with the Form S-3 Registration Statement.

## INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to incorporate into this prospectus by reference the information we file with it, which means that we can disclose important information to you by referring you to the documents containing that information. The information incorporated by reference is considered to be part of this prospectus, and information that we later file with the SEC will automatically update and, where applicable, modify or supersede that information.

We incorporate by reference the following documents previously filed with the SEC:

- our Annual Report on Form 10-K for the year ended December 31, 2016 filed with the SEC on March 9, 2017;
- the information included in our definitive proxy statement on Schedule 14A for our 2017 Annual Meeting of Stockholders, filed with the SEC on April 20, 2017, to the extent incorporated by reference in Part III of the Annual Report on Form 10-K for the year ended December 31, 2016;
- our Quarterly Report on Form 10-Q for the quarter ended March 31, 2017 filed with the SEC on May 3, 2017;
- our Quarterly Report on Form 10-Q for the quarter ended June 30, 2017 filed with the SEC on August 3, 2017;
- our Quarterly Report on Form 10-Q for the quarter ended September 30, 2017 filed with the SEC on November 2, 2017;
- our Current Reports on Form 8-K filed with the SEC on March 2, 2017, March 31, 2017, April 11, 2017, April 19, 2017, May 1, 2017, May 25, 2017, June 2, 2017, June 27, 2017, July 27, 2017, August 8, 2017, September 6, 2017, September 15, 2017, September 21, 2017, September 26, 2017, November 13, 2017, and December 13, 2017, respectively; and
- the description of our common stock contained in our registration statement on Form 8-A filed on February 25, 2015 pursuant to Section 12 of the Exchange Act, as amended by a Form 8-A/A filed on July 27, 2017 and including any amendment or report filed for the purpose of updating such description.

All documents filed by us pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act subsequent to the filing of the Form S-3 Registration Statement, including all such documents we may file with the SEC after the date of the Form S-3 Registration Statement and prior to the effectiveness of the registration statement, and prior to the filing of a post-effective amendment to the Form S-3 Registration Statement which indicates that all securities offered hereby have been sold or which deregisters all such securities then remaining unsold shall be deemed to be incorporated by reference herein and to be a part hereof from the date of filing of such documents. Any statement contained in this prospectus or in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained herein or in any subsequently filed document that is or is deemed to be incorporated by reference herein modifies or supersedes such statement.

Notwithstanding the foregoing, no portion of any document that is “furnished” but not “filed” in accordance with SEC rules under Exchange Act shall be deemed to be incorporated by reference into this prospectus. Any statement contained in this prospectus or in a document incorporated by reference into this prospectus will be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus or in any other subsequently filed document that is incorporated by reference herein modifies or supersedes the statement. Any statement so modified or superseded will not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

You may request a copy of any of these filings from us at no cost by writing or calling our Chief Financial Officer at the following address or telephone number: Iovance Biotherapeutics, Inc., 999 Skyway Road, Suite 150, San Carlos, California 94070; Telephone: (650) 260-7120.

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PROSPECTUS

\$250,000,000

**IOVANCE BIOTHERAPEUTICS, INC.**

Common Stock  
Preferred Stock  
Debt Securities  
Warrants  
Units

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The date of this prospectus is .

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**PART II**

**INFORMATION NOT REQUIRED IN PROSPECTUS**

**Item 14. Other Expenses of Issuance and Distribution.**

The following table sets forth the expenses to be paid by us, other than underwriting discounts and commissions, in connection with the offering of the securities described in this registration statement.

Securities and Exchange Commission registration fee	\$	31,125
FINRA filing fee		*
Printing and engraving expenses		*
The NASDAQ Global Market listing fees		*
Legal fees and expenses		*
Accounting fees and expenses		*
Transfer agent and registrar fees		*
Miscellaneous expenses		*
Total	\$	<u>          *</u>

\* These fees and expenses will be based upon the number of securities offerings and the amount of securities offered and accordingly cannot be estimated at this time.

**Item 15. Indemnification of Directors and Officers.**

Our certificate of incorporation provides that, to the maximum extent permitted under applicable law, none of our directors will have any personal liability to us or our stockholders for damages for breach of fiduciary duty as a director.

Section 102(b)(7) of the Delaware General Corporation Law allows a corporation to provide in its certificate of incorporation that a director of the corporation will not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, except where the director breached the duty of loyalty, failed to act in good faith, engaged in intentional misconduct or knowingly violated a law, authorized the payment of a dividend or approved a stock repurchase in violation of Delaware corporate law or obtained an improper personal benefit. Our certificate of incorporation provides for this limitation of liability.

Section 145 of the Delaware General Corporation Law provides, among other things, that a Delaware corporation may indemnify any person who was, is or is threatened to be made, party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of such corporation), by reason of the fact that such person is or was an officer, director, employee or agent of such corporation or is or was serving at the request of such corporation as a director, officer, employee or agent of another corporation or enterprise. The indemnity may include expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding, provided such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the corporation's best interests and, with respect to any criminal action or proceeding, had no reasonable cause to believe that his or her conduct was unlawful. A Delaware corporation may indemnify any persons who were or are a party to any threatened, pending or completed action or suit by or in the right of the corporation by reason of the fact that such person is or was a director, officer, employee or agent of another corporation or enterprise. The indemnity may include expenses (including attorneys' fees) actually and reasonably incurred by such person in connection with the defense or settlement of such action or suit, provided such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the corporation's best interests, provided further that no indemnification is permitted without judicial approval if the officer, director, employee or agent is adjudged to be liable to the corporation. Where an officer or director is successful on the merits or otherwise in the defense of any action referred to above, the corporation must indemnify him or her against the expenses (including attorneys' fees) which such officer or director has actually and reasonably incurred.

Our certificate of incorporation and bylaws provide for indemnification of our officers and directors to the fullest extent permitted by the Delaware General Corporation Law.

We also have entered into indemnification agreements with our directors and certain of our officers in which we agree, among other things, to indemnify them against certain liabilities that may arise by reason of their status or service as officers or directors.

We maintain a general liability insurance policy that covers certain liabilities of our officers and directors arising out of claims based on acts or omissions in their capacities as such.

**Item 16. Exhibits.**

The exhibits listed on the Exhibit Index immediately following the signature page hereto are filed herewith or incorporated by reference herein, and such exhibit list is incorporated in this Item 16 by reference.

**Item 17. Undertakings.**

(a) 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 this 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 this 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 Securities and Exchange 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 this registration statement or any material change to such information in this registration statement;

*provided, however*, that paragraphs (a)(1)(i), (a)(1)(ii) and (a)(1)(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 Securities and Exchange Commission by the registrant pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in this registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of this 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:

(i) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of this registration statement as of the date the filed prospectus was deemed part of and included in this registration statement; and

(ii) 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 this 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 this registration statement relating to the securities in this 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 this registration statement or made in a document incorporated or deemed incorporated by reference into this registration statement or prospectus that is a part of this registration statement will, as to a purchaser with a time of contract sale prior to such effective date, supersede or modify any statement that was made in this registration statement or prospectus that was a part of this registration statement or made in any such document immediately prior to such effective date.

(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 securities, the undersigned registrant undertakes that 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.

(b) The undersigned registrant hereby undertakes that, 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 15(d) of the Securities Exchange Act of 1934 and (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 this 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.

(c) Insofar as indemnification for liabilities arising under the Securities Act of 1933 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 Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act of 1933 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 whether such indemnification by it is against public policy as expressed in the Securities Act of 1933 and will be governed by the final adjudication of such issue.

(d) The undersigned registrant hereby undertakes to file an application for the purpose of determining the eligibility of the trustee to act under subsection (a) of Section 310 of the Trust Indenture Act (the "Act") in accordance with the rules and regulations prescribed by the Securities and Exchange Commission under section 305(b)(2) of the Act.

## SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of San Carlos, State of California, on December 28, 2017.

IOVANCE BIOTHERAPEUTICS, INC.

By: /s/ MARIA FARDIS  
Maria Fardis, Ph.D., M.B.A.  
President and Chief Executive Officer

KNOW ALL PERSONS BY THESE PRESENTS, that each individual whose signature appears below constitutes and appoints Maria Fardis, Ph.D., M.B.A. and Timothy E. Morris, and each of them, his or her true and lawful attorneys-in-fact and agents with full power of substitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement, and to sign any registration statement for the same offering covered by this registration statement that is to be effective on filing pursuant to Rule 462(b) promulgated under the Securities Act of 1933 and all post-effective amendments thereto, and to file the same, with all exhibits thereto and all documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, 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 or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or his or her or their substitute or substitutes, 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 indicated on December 28, 2017.

<u>Signature</u>	<u>Title</u>
<u>/s/ MARIA FARDIS</u> Maria Fardis, Ph.D., M.B.A.	President and Chief Executive Officer and Director (Principal Executive Officer)
<u>/s/ TIMOTHY E. MORRIS</u> Timothy E. Morris	Chief Financial Officer (Principal Financial and Accounting Officer)
<u>/s/ MERRILL A. MCPEAK</u> Merrill A. McPeak	Director
<u>/s/ JAY VENKATESAN</u> Jay Venkatesan	Director
<u>/s/ SANFORD J. HILLSBERG</u> Sanford J. Hillsberg	Director
<u>/s/ WAYNE ROTHBAUM</u> Wayne Rothbaum	Director
<u>/s/ RYAN MAYNARD</u> Ryan Maynard	Director
<u>/s/ IAIN DUKES</u> Iain Dukes	Director

## EXHIBIT INDEX

Exhibit Number	Description of Document
1.1	Form of Underwriting Agreement.*
<a href="#">3.1</a>	<a href="#">Plan of Conversion (incorporated herein by reference to Exhibit 2.1 to Registrant's Current Report on Form 8-K filed with the Commission on June 2, 2017.)</a>
<a href="#">3.3</a>	<a href="#">Articles of Conversion (incorporated herein by reference to Exhibit 3.1 to Registrant's Current Report on Form 8-K filed with the Commission on June 2, 2017.)</a>
<a href="#">3.3</a>	<a href="#">Certificate of Conversion (incorporated herein by reference to Exhibit 3.2 of Registrant's Current Report on Form 8-K filed with the Commission on June 2, 2017.)</a>
<a href="#">3.4</a>	<a href="#">Certificate of Incorporation of Registrant (incorporated herein by reference to Exhibit 3.3 of Registrant's Current Report on Form 8-K filed with the Commission on June 2, 2017.)</a>
<a href="#">3.5</a>	<a href="#">Certificate of Amendment of Certificate of Incorporation of Registrant (incorporated herein by reference to Exhibit 3.1 of Registrant's Current Report on Form 8-K filed with the Commission on June 27, 2017.)</a>
<a href="#">3.6</a>	<a href="#">Bylaws of Registrant (incorporated herein by reference to the Exhibit 3.4 to Registrant's Current Report on Form 8-K filed with the Commission on June 2, 2017.)</a>
<a href="#">3.7</a>	<a href="#">Amendment to the Bylaws of Registrant (incorporated herein by reference to the Exhibit 3.2 to Registrant's Current Report on Form 8-K filed with the Commission on June 27, 2017.)</a>
<a href="#">4.1</a>	<a href="#">Form of Indenture (filed with this registration statement).</a>
4.2	Form of Common Stock Certificate.*
4.3	Form of Warrant.*
4.4	Form of Warrant Agreement.*
4.5	Form of Certificate of Designation with respect to any Preferred Stock issued hereunder and the related form of Preferred Stock Certificate.*
4.6	Form of Debt Security.*
4.7	Form of Unit Agreement.*
<a href="#">5.1</a>	<a href="#">Opinion of TroyGould PC (filed with this registration statement).</a>
<a href="#">5.2</a>	<a href="#">Opinion of Morgan, Lewis &amp; Bockius LLP (filed with this registration statement).</a>
<a href="#">12.1</a>	<a href="#">Statement of Computation of Ratio of Earnings to Fixed Charges and Ratio of Combined Fixed Charges and Preferred Stock Dividends (filed with this registration statement).</a>
<a href="#">23.1</a>	<a href="#">Consent of Marcum LLP (filed with this registration statement).</a>
<a href="#">23.2</a>	<a href="#">Consent of Weinberg &amp; Company, P.A. (filed with this registration statement).</a>
<a href="#">23.3</a>	<a href="#">Consent of TroyGould PC (included in Exhibit 5.1).</a>

**Exhibit  
Number**

**Description of Document**

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[23.4 Consent of Morgan, Lewis & Bockius LLP \(included in Exhibit 5.2\).](#)

[24.1 Power of Attorney \(included on the signature page of this registration statement\).](#)

25.1 Statement of Eligibility of Trustee on Form T-1 under the Trust Indenture Act of 1939, as amended.\*\*

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\* If applicable, to be filed subsequent to the effectiveness of this registration statement (1) by an amendment to this registration statement or (2) as an exhibit to a Current Report on Form 8-K and incorporated herein by reference.

\*\* If applicable, to be filed subsequent to the effectiveness of this registration statement under the electronic form type 305B2 pursuant to Section 305(b)(2) of the Trust Indenture Act of 1939, as amended.

IOVANCE BIOTHERAPEUTICS, INC.

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INDENTURE

Dated as of [●]

[●]

Trustee

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IOVANCE BIOTHERAPEUTICS, INC.

Reconciliation and tie between Trust Indenture Act of 1939, as amended,  
and this Indenture

Trust Indenture Act Section	Indenture Section
§310(a)(1)	6.09
(a)(2)	6.09
(a)(3)	Not Applicable
(a)(4)	Not Applicable
(a)(5)	6.09
(b)	6.04, 6.10
§311(a)	6.13
(b)	6.13
§312(a)	14.01, 14.02(a)
(b)	14.02(b)
(c)	14.02(c)
§313(a)	14.03(a)
(b)	14.03(a)
(c)	14.03(a), 14.03(b)
(d)	14.03(b)
§314(a)	4.05, 14.04
(b)	Not Applicable
(c)(1)	15.06
(c)(2)	15.06
(c)(3)	Not Applicable
(d)	Not Applicable
(e)	15.06
§315(a)	6.01
(b)	6.06, 14.03(a)
(c)	6.01
(d)	6.01
(e)	5.11
§316(a)(1)(A)	5.05
(a)(1)(B)	5.02, 5.04
(a)(2)	Not Applicable
(b)	5.07
(c)	7.02, 8.03
§317(a)(1)	5.08
(a)(2)	5.09
(b)	4.03
318 (a)	15.08

This cross-reference table shall not, for any purpose, be deemed to be part of this Indenture.

INDENTURE dated as of [●] between Iovance Biotherapeutics, Inc., a Delaware corporation (the “Company”), the Guarantors (as defined herein) and [●], as trustee (the “Trustee”).

WITNESSETH:

WHEREAS, the Company and the Guarantors have duly authorized the execution and delivery of this Indenture to provide for the issuance from time to time of its unsecured debentures, notes or other evidences of indebtedness (herein called the “Securities”), to be issued in one or more series as in this Indenture provided; and

WHEREAS, all things necessary to make the Indenture a valid indenture and agreement according to its terms, have been done.

NOW, THEREFORE:

In consideration of the premises and the purchases of the Securities by the Holders thereof, the Company, the Guarantors and the Trustee mutually covenant and agree for the equal and proportionate benefit of the respective Holders from time to time of the Securities as follows:

ARTICLE 1

DEFINITIONS

SECTION 1.01. Certain Terms Defined. The following terms (except as otherwise expressly provided or unless the context otherwise clearly requires) for all purposes of this Indenture and of any indenture supplemental hereto shall have the respective meanings specified in this Section. All other terms used in this Indenture which are defined in the Trust Indenture Act or the definitions of which in the Securities Act are referred to in the Trust Indenture Act (except as herein otherwise expressly provided or unless the context otherwise clearly requires), shall have the meanings assigned to such terms in the Trust Indenture Act and in the Securities Act as in force at the date of this Indenture. All accounting terms used herein and not expressly defined shall have the meanings given to them in accordance with generally accepted accounting principles in the United States (whether or not such is indicated herein). The words “herein,” “hereof” and “hereunder” and other words of similar import refer to this Indenture as a whole and not to any particular Article, Section or other subdivision. The terms defined in this Article include the plural as well as the singular.

“Agent Members” has the meaning provided in Section 3.08(a).

“Board of Directors” means, with respect to any Person, the board of directors or board of managers of such Person, or any authorized committee of the board of directors or board of managers of such Person or any officer of such Person duly authorized by the board of directors or board of managers of such Person to take a specific action.

“Board Resolution” means, with respect to the Company or any Guarantor, a copy of a resolution certified by the Secretary or an Assistant Secretary of the Company or such Guarantor, respectively, to have been duly adopted by the Board of Directors of the Company or such Guarantor, respectively, and to be in full force and effect on the date of such certification, and delivered to the Trustee.

“Business Day” means any day except a Saturday, Sunday or other day on which banking institutions or trust companies located in the same jurisdiction as the Payment Office specified pursuant to Section 3.01 are authorized or obligated by law or executive order to close, except as otherwise specified pursuant to Section 3.01.

“Commission” means the United States Securities and Exchange Commission, as from time to time constituted, created under the Exchange Act, or, if at any time after the execution of this instrument such Commission is not existing and performing the duties now assigned to it under the Trust Indenture Act, then the body performing such duties at such time.

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“Company” means the Person named as the “Company” in the first paragraph of this Indenture until a successor shall have become such pursuant to the applicable provisions of this Indenture, and thereafter “Company” shall mean such successor.

“Company Request” or “Company Order” means a written request or order signed in the name of the Company by its Chairman of the Board of Directors, its President, its Chief Executive Officer, its Chief Financial Officer, its Treasurer, its Controller, its Secretary or an Assistant Secretary, and delivered to the Trustee.

“Corporate Trust Office” means the corporate trust office of the Trustee at which the corporate trust business of the Trustee shall, at any particular time, be principally administered, which office is, at the date as of which this Indenture is dated, located at [●].

“Default” means any event that is or with the passage of time or the giving of notice or both would be an Event of Default.

“Depository” means The Depository Trust Company, its nominees, and their respective successors.

“Dollar” or “\$” means a dollar or other equivalent unit in such coin or currency of the United States as at the time shall be legal tender for the payment of public and private debt.

“Event of Default” means any event or condition specified as such in Section 5.01 which shall have continued for the period of time, if any, therein designated.

“Exchange Act” means the Securities Exchange Act of 1934, as amended.

“GAAP” means generally accepted accounting principles in the United States set forth in the opinions and pronouncements of the Accounting Principles Board of the American Institute of Certified Public Accountants and statements and pronouncements of the Financial Accounting Standards Board or in such other statements by such other entity as may be approved by a significant segment of the accounting profession of the United States, as in effect from time to time. At any time after the Issue Date with respect to a series of Securities, the Company may elect to apply IFRS in lieu of GAAP and, upon any such election, references in this Indenture to GAAP shall thereafter be construed to mean IFRS as in effect from time to time. The Company shall give notice of any such election to the Trustee.

“Global Security” means a Security, and any Guarantees endorsed thereon, evidencing all or part of a series of Securities and the corresponding Guarantees, if any, issued to the Depository for that series in accordance with Section 3.05 and bearing the appropriate legend prescribed in Section 3.06.

“Government Securities” means direct obligations of, or obligations guaranteed by, the United States of America, and the payment for which the United States pledges its full faith and credit.

“Guarantee” means with respect to the Securities of any series, the Guarantee with respect to the Securities of such series by the applicable Guarantor or Guarantors pursuant to Section 2.02 hereof and a supplemental indenture.

“Guarantor” means, with respect to Securities of any series, any of the Company’s direct and indirect Subsidiaries, but only if such entity has guaranteed the Company’s obligations under this Indenture and with respect to such series of Securities pursuant to Section 2.01 hereof; provided that upon the release and discharge of any Person from its Guarantee in accordance with this Indenture or as specified pursuant to Section 3.01, such Person shall cease to be a Guarantor.

“Holder,” “Holder of Securities” or other similar terms mean the registered holder of any Security.

“IFRS” means International Financial Reporting Standards promulgated by the International Accounting Standards Board (or any successor board or agency) and as adopted by the European Union, as in effect from time to time.

“Indenture” means this indenture as originally executed or as it may from time to time be supplemented or amended by one or more indentures supplemental hereto entered into pursuant to the applicable provisions hereof and shall include the terms of particular series of Securities established as contemplated hereunder.

“Interest Payment Date” means, when used with respect to any Security, the Stated Maturity of an installment of interest on such Security.

“Issue Date” means, with respect to Securities of a series, the first date on which the Securities of such series are originally issued under this Indenture.

“Maturity,” means, when used with respect to any Security, the date on which the principal of such Security or an installment of principal becomes due and payable as therein or herein provided, whether at the Stated Maturity or by declaration of acceleration, call for redemption or otherwise.

“Notice of Default” has the meaning provided in Section 6.06.

“Officers’ Certificate” means a certificate signed on behalf of the Company by an officer of the Company (or on behalf of a Guarantor by an officer of such Guarantor, as the case may be) that meets the requirements of Section 15.06 hereof.

“Opinion of Counsel” means an opinion in writing signed by legal counsel who may be an employee of or counsel to the Company or a Guarantor or who may be other counsel satisfactory to the Trustee.

“outstanding” means, when used with reference to Securities, subject to the provisions of Article 7, as of any particular time, all Securities authenticated and delivered by the Trustee under this Indenture, except

(a) Securities theretofore canceled by the Trustee or delivered to the Trustee for cancellation;

(b) Securities, or portions thereof, for the payment or redemption of which moneys in the necessary amount shall have been deposited in trust with the Trustee or with any Paying Agent (other than the Company or a Guarantor) or shall have been set aside, segregated and held in trust by the Company or a Guarantor (if the Company or a Guarantor shall act as Paying Agent); provided that if such Securities are to be redeemed prior to the maturity thereof, notice of such redemption shall have been given as herein provided, or provision satisfactory to a Responsible Officer of the Trustee shall have been made for giving such notice;

(c) Securities in substitution for which other Securities shall have been authenticated and delivered, or which shall have been paid, pursuant to the terms of Section 3.09 (unless proof satisfactory to the Trustee and the Company is presented that any of such Securities is held by a person in whose hands such Security is a legal, valid and binding obligation of the Company); and

(d) Securities that have been defeased pursuant to Section 12.01.

“Paying Agent” means any Person authorized by the Company to pay the principal of (and premium, if any) and interest, if any, on any Securities on behalf of the Company. The Company or a Guarantor may act as Paying Agent with respect to any Securities issued hereunder.

“Payment Office” means, when used with respect to the Securities of or within any series, the place or places where the principal of (and premium, if any) and interest on such Securities are payable as specified pursuant to Section 3.01.

“Person” means any individual, corporation, partnership, joint stock company, business trust, trust, unincorporated association, joint venture or other entity or organization, including a government or political subdivision or an agency or instrumentality thereof.

“Physical Securities” means Securities issued pursuant to Section 3.02 in exchange for interest in the Global Security or pursuant to Section 3.08(b) in registered form substantially in the form hereinabove recited.

“Principal Amount” means, when used with respect to any Security, the amount of principal of such Security that could then be declared due and payable pursuant to Section 5.02.

“Registrar” has the meaning provided in Section 3.07.

“Regular Record Date” for the interest payable on any Interest Payment Date on the Securities of any series means the date specified for that purpose as contemplated by Section 3.01.

“Responsible Officer” means, when used with respect to the Trustee, any officer within the Corporate Trust Office of the Trustee including any vice president, any trust officer, any assistant vice president, any assistant secretary, any assistant treasurer, or any other officer of the Trustee customarily performing functions similar to those performed by the persons who at the time shall be such officers, respectively, or to whom any corporate trust matter is referred because of his or her knowledge of and familiarity with the particular subject and who shall have direct responsibility for the administration of this Indenture.

“Securities Act” means the Securities Act of 1933, as amended.

“Security” or “Securities” means any Security or Securities, as the case may be, authenticated and delivered under this Indenture.

“Security Register” has the meaning provided in Section 3.07.

“Stated Maturity” means, when used with respect to any Security or any installment of principal thereof or interest thereon, the date specified in such Security or a coupon representing such installment of interest as the fixed date on which the principal of such Security or such installment of principal or interest is due and payable.

“Subsidiary” means, as applied, with respect to any Person, any corporation, partnership or other legal entity of which, in the case of a corporation, more than 50% of the issued and outstanding capital stock having ordinary voting power to elect a majority of the board of directors of such corporation (irrespective of whether at the time capital stock of any other class or classes of such corporation has or might have voting power upon the occurrence of any contingency), or, in the case of any partnership or other legal entity, more than 50% of the ordinary equity capital interests, is at the time directly or indirectly owned or controlled by such Person, by such Person and one or more of its other Subsidiaries or by one or more of such Person’s other Subsidiaries.

“Trust Indenture Act” means the Trust Indenture Act of 1939, as amended, as in force at the date as of which this Indenture was originally executed, and “TIA” means, when used in respect of an indenture supplemental hereto, such Act as in force at the time such indenture supplemental hereto becomes effective.

“Trustee” means the Person named as the “Trustee” in the first paragraph of this Indenture until a successor Trustee shall have become such pursuant to the applicable provisions of this Indenture, and thereafter “Trustee” shall mean or include each Person who is then a Trustee hereunder; provided that if at any time there is more than one such Person, “Trustee” as used with respect to the Securities of any series shall mean only the Trustee with respect to Securities of that series.

SECTION 1.02. Other Definitions.

<u>Term</u>	<u>Defined in Section</u>
"Authorized Agent"	15.12
"Covenant Defeasance"	12.03
"Legal Defeasance"	12.02
"Specified Courts"	15.12

SECTION 1.03. Rules of Construction.

Unless the context otherwise requires:

- (a) a term has the meaning assigned to it;
- (b) an accounting term not otherwise defined has the meaning assigned to it in accordance with GAAP;
- (c) "or" is not exclusive;
- (d) words in the singular include the plural, and in the plural include the singular;
- (e) provisions apply to successive events and transactions; and
- (f) all references in this instrument to Articles and Sections are references to the corresponding Articles and Sections in and of this instrument unless the context requires otherwise.

ARTICLE 2

SECURITY FORMS

SECTION 2.01. Forms Generally. The Securities of each series, and all Guarantees endorsed thereon, if any, shall be in substantially the forms as shall be established by or pursuant to a Board Resolution of the Company (and a Board Resolution of each Guarantor with respect to the Guarantees, if any) or in one or more indentures supplemental hereto, in each case with such appropriate insertions, omissions, substitutions and other variations as are required or permitted by this Indenture, and may have such letters, numbers or other marks of identification and such legends or endorsements placed thereon as may be required to comply with the rules of any securities exchange or as may, consistently herewith, be determined by the officers executing such Securities and Guarantees, if any, as evidenced by their execution of the Securities and Guarantees. If the form of Securities of any series, and any Guarantees endorsed thereon, is established by action taken pursuant to a Board Resolution, a copy of an appropriate record of such action shall be certified by the Secretary or an Assistant Secretary of the Company, and by the Secretary or Assistant Secretary of the Guarantors, if any, and delivered to the Trustee at or prior to the delivery of the Company Order contemplated by Section 3.02 for the authentication and delivery of such Securities.

The Trustee's certificate of authentication on all Securities shall be in substantially the form set forth in this Article.

The definitive Securities of any series shall be printed, lithographed or engraved on steel-engraved borders or may be produced in any other manner, all as determined by the officers executing such Securities, as evidenced by their execution of such Securities.

SECTION 2.02. Guarantees by Guarantor; Form of Guarantee; Release of Guarantee.

(a) Except as otherwise specified in or pursuant to the Officers' Certificate or supplemental indenture contemplated by Section 3.01(b), the provisions of this Section 2.02 will be applicable to any series of Securities that is to be guaranteed by one or more Guarantors.



(b) Each Guarantor by its execution of this Indenture hereby agrees with each Holder of a Security of each series that is guaranteed by such Guarantor and authenticated and delivered by the Trustee and with the Trustee on behalf of each such Holder, to be unconditionally bound by the terms and provisions of the Guarantee set forth below and authorizes the Trustee to confirm such Guarantee to the Holder of each such Security by its execution and delivery of each such Security, with such Guarantee endorsed thereon, authenticated and delivered by the Trustee.

Guarantees to be endorsed on the Securities shall, subject to this Section 2.02, be in substantially the form set forth below:

GUARANTEE  
OF  
[GUARANTOR]

For value received, [●] (the “Guarantor”) hereby unconditionally and irrevocably guarantees, jointly and severally, to the Holder of the Security upon which this Guarantee is endorsed and to the Trustee on behalf of each such Holder the due and punctual payment of the principal of, premium, if any, interest and additional amounts, if any, on such Security and the due and punctual payment of any sinking fund or analogous payments referred to therein, if any, when and as the same shall become due and payable, whether on the Stated Maturity, by declaration of acceleration, call for redemption or otherwise, according to the terms thereof and of the Indenture dated as of [●] among Iovance Biotherapeutics, Inc. (hereinafter called the “Company,” which term includes any successor Person thereto under the Indenture), the Guarantors (as defined therein) and [●], as trustee (the “Indenture” and as supplemented by any applicable supplemental indenture, the “Indenture”). In case of the failure of the Company punctually to make any such payment of principal, premium, if any, or interest, and additional amounts, if any, or any sinking fund or analogous payment, the Guarantor, for so long as this Guarantee shall be in effect, hereby agrees to cause any such payment to be made to or to the order of the Trustee punctually when and as the same shall become due and payable, whether on the Stated Maturity or by declaration of acceleration, call for redemption or otherwise, and as if such payment were made by the Company.

The Guarantor hereby agrees, to the extent permitted by law, that its obligations hereunder shall be as if it were the principal debtor and not merely surety, and shall be absolute and unconditional, irrespective of, and shall be unaffected by, any invalidity, irregularity or unenforceability of such Security or the Indenture, any failure to enforce the provisions of such Security or the Indenture, or any waiver, modification or indulgence granted to the Company with respect thereto, by the Holder of such Security or the Trustee or any other circumstance which may otherwise constitute a legal or equitable discharge of a surety or guarantor. The Guarantor hereby waives, to the extent permitted by law, diligence, presentment, demand of payment, filing of claims with a court in the event of merger or bankruptcy of the Company, any right to require a proceeding first against the Company, protest or notice with respect to such Security or the indebtedness evidenced thereby or with respect to any sinking fund or analogous payment required under such Security and all demands whatsoever, and covenants that this Guarantee will not be discharged except by payment in full of the principal of, premium, if any, and interest on such Security or as otherwise described in Section 2.02 of the Indenture.

This Guarantee shall be automatically and unconditionally released on the terms set forth in Section 2.02(c) of the Indenture and such terms as have been specified pursuant to Section 3.01.

The Guarantor shall be subrogated to all rights of the Holder of such Security and the Trustee against the Company in respect of any amounts paid to such Holder by the Guarantor pursuant to the provisions of this Guarantee; provided that the Guarantor shall not be entitled to enforce, or to receive any payments arising out of or based upon such right of subrogation until the principal of, premium, if any, and interest on all Securities of the same series issued under the Indenture shall have been paid in full.

The Guarantor hereby agrees that its obligations hereunder shall be direct, unconditioned and unsubordinated and will rank equally and ratably without preference and at least equally with other senior unsecured and unsubordinated obligations of the Guarantor, except to the extent prescribed by law. The Holder of a guaranteed Security will be entitled to payment under the Guarantee without taking any action whatsoever against the Company.

No reference herein to the Indenture and no provision of this Guarantee or of the Indenture shall alter or impair the guarantee of the Guarantor, which is absolute and unconditional, of the due and punctual payment of the principal of, premium, if any, and interest on, any additional amounts, and any sinking fund or analogous payments with respect to, the Security upon which this Guarantee is endorsed.

This Guarantee shall not be valid or obligatory for any purpose until the certificate of authentication of such Security shall have been manually executed by or on behalf of the Trustee under the Indenture.

All terms used in this Guarantee that are defined in the Indenture shall have the meanings assigned to them in the Indenture.

This Guarantee shall be governed by and construed in accordance with the laws of the State of New York, but without giving effect to applicable principles of conflicts of law to the extent that the application of the law of another jurisdiction would be required thereby.

Executed and dated the date on the face hereof.

[GUARANTOR]

By: \_\_\_\_\_

Name:

Title:

(c) Release of Guarantee.

(i) The Guarantee of a Guarantor relating to a series of Securities shall be released automatically and unconditionally, and such Guarantor shall be relieved of all of its obligations under its Guarantee of such Securities, (A) upon defeasance or discharge of such series of Securities as provided in Article 12 or Article 13 of this Indenture, (B) if for any reason, such Guarantor ceases to be a Subsidiary of the Company, or (C) in connection with any sale, disposition or transfer of all or substantially all of the assets of that Guarantor (including by way of merger or consolidation) to a Person that is not (either before or after giving effect to such transaction) the Company or a Subsidiary of the Company.

(ii) The Guarantee of a Guarantor relating to a series of Securities shall be released automatically and unconditionally, and such Guarantor shall be relieved of all of its obligations under its Guarantee of such Securities, in any additional circumstances provided in the terms of the Securities of such series established pursuant to Section 3.01 of this Indenture and any relevant supplemental indenture.

(iii) At such time as a Guarantor's Guarantee is released with respect to any series of Securities, such Guarantor will no longer be considered a "Guarantor" of such series of Securities.

(iv) The Trustee shall promptly execute any documents reasonably requested by the Company or applicable Guarantor relating to a series of Securities in order to evidence the release of such Guarantor from its obligations under its Guarantee of the Securities of such series; provided that the Trustee shall not be obligated to execute or deliver any document evidencing the release of a Guarantee pursuant to this Section 2.02(c) unless the Company has delivered an Officers' Certificate or an Opinion of Counsel to the effect that such release is in accordance with the provisions of this Indenture.

SECTION 2.03. Form of Trustee's Certificate of Authentication. The Trustee's certificate of authentication shall be substantially in the following form:

This is one of the Securities of the series designated therein referred to in the within-mentioned Indenture.

[\_\_\_\_\_] ,  
as Trustee

By: \_\_\_\_\_  
Authorized Signatory

### ARTICLE 3

#### ISSUE, EXECUTION, FORM AND REGISTRATION OF SECURITIES

##### SECTION 3.01. Amount Unlimited; Issuable in Series.

(a) The aggregate principal amount of Securities which may be authenticated and delivered under this Indenture is unlimited.

(b) The Securities may be issued from time to time in one or more series. Prior to the issuance of Securities of any series, there shall be established in or pursuant to (i) a Board Resolution of the Company and each Guarantor, if any, of the Securities of such series, (ii) action taken pursuant to a Board Resolution and (subject to Sections 3.03 and 3.04) set forth, or determined in the manner provided, in an Officers' Certificate of the Company and each Guarantor, if any, of the Securities of such series, or (iii) one or more indentures supplemental hereto:

- (1) the title of the Securities of the series (which shall distinguish the Securities of the series from all other Securities);
- (2) whether or not such Securities are to be guaranteed pursuant to Section 2.02 and, if so, the Guarantor or Guarantors thereof;
- (3) the purchase price, denomination and any limit upon the aggregate principal amount of the Securities of the series which may be authenticated and delivered under this Indenture (except for Securities authenticated and delivered upon registration of transfer of, or in exchange for, or in lieu of, other Securities of the series pursuant to Sections 3.07, 3.09, 3.11, 9.05 or 11.03);
- (4) the date or dates on which the principal of and premium, if any, on the Securities of the series is payable or the method of determination thereof;
- (5) the rate or rates at which the Securities of the series shall bear interest, if any, or the method of calculating such rate or rates of interest, the date or dates from which such interest shall accrue or the method by which such date or dates shall be determined, the Interest Payment Dates on which any such interest shall be payable and the Regular Record Date, if any, for the interest payable on any Interest Payment Date;
- (6) the place or places where the principal of (and premium, if any) and interest, if any, on Securities of the series shall be payable;
- (7) the place or places where the Securities may be exchanged or transferred;
- (8) the period or periods within which, the price or prices at which, the currency or currencies (including currency unit or units) in which, and the other terms and conditions upon which Securities of the series may be redeemed, in whole or in part, at the option of the Company, if the Company is to have that option, and, if other than as provided in Section 11.02, the manner in which the particular Securities of such series (if less than all Securities of such series are to be redeemed) are to be selected for redemption;

(9) the obligation, if any, of the Company to redeem or purchase Securities of the series in whole or in part pursuant to any sinking fund or analogous provisions or upon the happening of a specified event or at the option of a Holder thereof and the period or periods within which, the price or prices at which, and the other terms and conditions upon which Securities of the series shall be redeemed or purchased, in whole or in part, pursuant to such obligation;

(10) if other than denominations of \$2,000 and multiples of \$1,000 in excess thereof, the denominations in which Securities of the series shall be issuable;

(11) if other than Dollars, the currency or currencies (including currency unit or units) in which payments of principal of (and premium, if any) and interest, if any, on the Securities of the series shall or may be payable, or in which the Securities of the series shall be denominated, and the particular provisions applicable thereto;

(12) if the payments of principal of (and premium, if any) and interest, if any, on the Securities of the series are to be made, at the election of the Company or a Holder, in a currency or currencies (including currency unit or units) other than that in which such Securities are denominated or designated to be payable, the currency or currencies (including currency unit or units) in which such payments are to be made, the terms and conditions of such payments and the manner in which the exchange rate with respect to such payments shall be determined, and the particular provisions applicable thereto;

(13) if the amount of payments of principal of (and premium, if any) and interest, if any, on the Securities of the series shall be determined with reference to any commodities, currencies or indices, values, rates or prices or any other index, formula or method (which index, formula or method may be based, without limitation, on a currency or currencies (including currency unit or units) other than that in which the Securities of the series are denominated or designated to be payable), the manner in which such amounts shall be determined;

(14) if other than the principal amount thereof, the portion of the principal amount of Securities of the series which shall be payable upon declaration of acceleration of the Maturity thereof pursuant to Section 5.02 or the method by which such portion shall be determined;

(15) any modifications of or additions to the Events of Default set forth in Section 5.01 or the covenants of the Company set forth in Article 4 or Article 10 with respect to Securities of the series; and whether such additional or modified Events of Default or covenants are subject to covenant defeasance pursuant to Section 12.03;

(16) if either or both of Section 12.02 and Section 12.03 shall be inapplicable to the Securities of the series (provided that if no such inapplicability shall be specified and the Securities of such series are not convertible into or their value is not determined with reference to the Company's equity securities, then both Section 12.02 and Section 12.03 shall be applicable to the Securities of such series; provided further that if no such inapplicability shall be specified and the Securities of such series are convertible into or their value is determined with reference to the Company's equity securities, then neither Section 12.02 nor Section 12.03 shall be applicable to the Securities of such series) and any other terms upon which the Securities of such series will be defeasible;

(17) if other than the Trustee, the identity of the Registrar and any Paying Agent;

(18) if the Securities of the series shall be issued in whole or in part in global form, (i) the Depositary for such global Securities, (ii) the form of any legend in addition to or in lieu of that in Section 3.06 which shall be borne by such global Security, (iii) whether beneficial owners of interests in any Securities of the series in global form may exchange such interests for certificated Securities of such series and of like tenor of any authorized form and denomination, and (iv) if other than as provided in Section 3.08, the circumstances under which any such exchange may occur;

(19) if, and the terms and conditions upon which, the Securities of such series may or must be converted into securities of the Company or exchanged for securities of the Company or another enterprise; and

(20) any other terms of the series or any Guarantees endorsed thereon (which terms shall not adversely affect a prior series of Securities).

All Securities of any one series shall be substantially identical except as to denomination and except as may otherwise be provided (i) by a Board Resolution of the Company, (ii) by action taken pursuant to a Board Resolution of the Company and (subject to Sections 3.02-3.05) set forth, or determined in the manner provided, in an Officers' Certificate or (iii) in any such indenture supplemental hereto. All Securities of any one series need not be issued at the same time and, unless otherwise provided, a series may be reopened, without the consent of the Holders, for issuances of additional Securities of such series.

If any of the terms of the Securities of any series, and any Guarantees endorsed thereon, are established by action taken pursuant to a Board Resolution of the Company and the Guarantors, if any, a copy of an appropriate record of such action shall be certified by the Secretary or an Assistant Secretary of the Company and the Guarantors, if any, and delivered to the Trustee at or prior to the delivery of the Officers' Certificate setting forth, or providing the manner for determining, the terms of the Securities of such series, and an appropriate record of any action taken pursuant thereto in connection with the issuance of any Securities of such series shall be delivered to the Trustee prior to the authentication and delivery thereof.

SECTION 3.02. Authentication and Delivery of Securities. Upon the execution and delivery of this Indenture, or from time to time thereafter, Securities of any series and any Guarantees endorsed thereon may be executed by the Company and the Guarantors, if any, and delivered by the Company to the Trustee for authentication, together with a Company Order, and upon delivery to the Trustee of all documents and certificates as required by this Indenture, the Trustee shall thereupon, in accordance with such Company Order, authenticate and make available for delivery said Securities.

SECTION 3.03. Execution of Securities. The Securities of each series shall be executed on behalf of the Company, and each of the Guarantees, if any, shall be executed on behalf of the applicable Guarantor, by the Chairman of the Board of Directors, the President, the Chief Executive Officer, the Chief Financial Officer, the Treasurer, the Controller, the Secretary or any Assistant Secretary of the Company or of such Guarantor, as the case may be. The signatures of any of such officers on the Securities or the Guarantees may be the manual or facsimile signatures of the present or any future such officers. In case any officer of the Company or of each Guarantor, if any, who shall have signed any of the Securities and Guarantees, if any, shall cease to be such officer before the Security so signed or to which the Guarantee relates shall be authenticated and delivered by the Trustee or disposed of by the Company, such Security nevertheless may be authenticated and delivered or disposed of as though the person who signed such Security or Guarantee had not ceased to be such officer of the Company or of such Guarantor, as the case may be; and any Security or Guarantee may be signed on behalf of the Company or of a Guarantor, if any, by such persons as shall be the proper officers of the Company or of such Guarantor, as the case may be, at the actual date of the execution of such Security or Guarantee even though any such person was not such officer at the date of the execution and delivery of this Indenture.

SECTION 3.04. Certificate of Authentication. Only such Securities or Guarantees endorsed thereon, if any, as shall bear thereon a certificate of authentication substantially in the form hereinabove recited, executed by the Trustee by manual signature of one of its authorized signatories, shall be entitled to the benefits of this Indenture or be valid or obligatory for any purpose. Such certificate by the Trustee upon any Security executed by the Company shall be conclusive evidence that the Security so authenticated has been duly authenticated and delivered hereunder and that the Holder is entitled to the benefits of this Indenture.

SECTION 3.05. Denomination, Currency and Date of Securities; Payments of Interest.

(a) The Securities shall be issuable in such denominations and currency as shall be specified as contemplated by Section 3.01. In the absence of any specification pursuant to Section 3.01 with respect to Securities of any series, the Securities of such series shall be denominated in Dollars, issuable only as Securities in denominations of \$2,000 and multiples of \$1,000 in excess thereof and payable only in Dollars. The Securities shall be numbered, lettered, or otherwise distinguished in such manner or in accordance with such plans as the officers of the Company executing the same may determine with the approval of the Trustee.

Any of the Securities and Guarantees, if any, may be issued with appropriate insertions, omissions, substitutions and variations, and may have imprinted or otherwise reproduced thereon such legend or legends, not inconsistent with the provisions of this Indenture, as may be required to comply with any law or with any rules or regulations pursuant thereto, including those required by Section 3.06, or with the rules of any securities market in which the Securities are admitted to trading, or to conform to general usage.

Each Security shall be dated the date of its authentication, shall bear interest from the applicable date and shall be payable on the dates specified on the face of the form of Security above. Except as otherwise specified as contemplated by Section 3.01 for Securities of any series, interest on the Securities of each series shall be computed on the basis of a 360-day year of twelve 30-day months.

(b) Global Securities. If Securities of or within a series are issuable in whole or in part in global form, then any such Security of such series shall be deposited with the Trustee as custodian for the Depository and registered in the name of Cede & Co., as nominee for the Depository. The Global Security shall be deposited on behalf of the purchasers of the Securities represented thereby with the Trustee, as custodian for the Depository (or with such other custodian as the Depository may direct), and registered in the name of the Depository or a nominee of the Depository, duly executed by the Company and each Guarantor, if any, and authenticated by the Trustee as hereinafter provided. The aggregate principal amount of the Global Securities may from time to time be increased or decreased by adjustments made on the records of the Trustee and the Depository or its nominee as hereinafter provided.

(c) The person in whose name any Security is registered at the close of business on any Regular Record Date with respect to any Interest Payment Date shall be entitled to receive the interest, if any, payable on such Interest Payment Date notwithstanding any transfer or exchange of such Security subsequent to the Regular Record Date and prior to such Interest Payment Date, except if and to the extent the Company or a Guarantor, if any, shall default in the payment of the interest due on such Interest Payment Date, in which case such defaulted interest, plus (to the extent lawful) any interest payable on the defaulted interest, shall be paid to the persons in whose names outstanding Securities are registered at the close of business on a subsequent record date (which shall be not less than five Business Days prior to the date of such payment) established by notice given by mail by or on behalf of the Company or such Guarantor to the Holders of Securities not less than 15 calendar days preceding such subsequent record date.

SECTION 3.06. Global Security Legend. Any Security in global form authenticated and delivered hereunder shall bear a legend in substantially the following form, or in such other form as may be necessary or appropriate to reflect the arrangements with or to comply with the requirements of any Depository:

THIS SECURITY IS A GLOBAL SECURITY WITHIN THE MEANING OF THE INDENTURE HEREINAFTER REFERRED TO AND IS REGISTERED IN THE NAME OF THE DEPOSITARY OR A NOMINEE OF THE DEPOSITARY, WHICH MAY BE TREATED BY THE COMPANY, THE TRUSTEE AND ANY AGENT THEREOF AS OWNER AND HOLDER OF THIS SECURITY FOR ALL PURPOSES.

UNLESS THIS CERTIFICATE IS PRESENTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITARY TRUST COMPANY, TO THE COMPANY OR ITS AGENT FOR REGISTRATION OF TRANSFER, EXCHANGE OR PAYMENT, AND ANY CERTIFICATE ISSUED IS REGISTERED IN THE NAME OF CEDE & Co. OR IN SUCH OTHER NAME AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITARY TRUST COMPANY (AND ANY PAYMENT HEREON IS MADE TO CEDE & Co. OR TO SUCH OTHER ENTITY AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITARY TRUST COMPANY), ANY TRANSFER, PLEDGE OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL SINCE THE REGISTERED OWNER HEREOF, CEDE & Co., HAS AN INTEREST HEREIN.

TRANSFERS OF THIS GLOBAL SECURITY SHALL BE LIMITED TO TRANSFERS IN WHOLE, BUT NOT IN PART, TO NOMINEES OF THE DEPOSITORY TRUST COMPANY OR TO A SUCCESSOR THEREOF OR SUCH SUCCESSOR'S NOMINEE.

SECTION 3.07. Registration, Transfer and Exchange. The Securities are issuable only in registered form. The Company will keep at each office or agency (the "Registrar") for each series of Securities a register or registers (the "Security Register(s)") in which, subject to such reasonable regulations as it may prescribe, it will register, and will register the transfer of Securities as provided in this Article. Such Security Register or Security Registers shall be in written form in the English language or in any other form capable of being converted into such form within a reasonable time. At all reasonable times such Security Register or Security Registers shall be open for inspection by the Trustee. The initial Registrar shall be the Trustee.

Upon due presentation for registration of transfer of any Security of any series at each such office or agency, the Company shall execute a new Security or Securities of the same series, in each case, of any authorized denominations and of a like aggregate Principal Amount in the name of the designated transferee or transferees, the applicable Guarantors, if any, shall execute the Guarantees endorsed thereon and, upon receipt of a Company Order, the Trustee shall authenticate and make available for delivery such Securities.

At the option of the Holder, Securities of any series (except a Security in global form) may be exchanged for other Securities of the same series, of any authorized denominations and of a like aggregate Principal Amount and Stated Maturity, upon surrender of the Securities to be exchanged at such office or agency. Whenever any Securities are so surrendered for exchange, the Company shall execute the Securities which the Holder making the exchange is entitled to receive, the applicable Guarantors, if any, shall execute the Guarantees endorsed thereon and, upon receipt of a Company Order, the Trustee shall authenticate and make available for delivery such Securities.

A Holder may transfer a Security only by written application to the Registrar stating the name of the proposed transferee and otherwise complying with the terms of this Indenture. No such transfer shall be effected until, and such transferee shall succeed to the rights of a Holder only upon, final acceptance and registration of the transfer by the Registrar in the Security Register. Prior to the registration of any transfer by a Holder as provided herein, the Company, the Guarantors, if any, and the Trustee or any of their respective agents shall treat the person in whose name the Security is registered as the owner thereof for all purposes whether or not the Security shall be overdue, and neither the Company, the Guarantors, if any, the Trustee, nor any such agent shall be affected by notice to the contrary. Furthermore, any Holder of a Global Security shall, by acceptance of such Global Security, agree that transfers of beneficial interests in such Global Security may be effected only through a book entry system maintained by the Depository (or its nominee) and that ownership of a beneficial interest in the Security shall be required to be reflected in a book entry. When Securities are presented to the Registrar or a co-Registrar with a request to register the transfer or to exchange them for an equal Principal Amount of Securities of other authorized denominations, the Registrar shall register the transfer or make the exchange as requested if the requirements for such transactions set forth herein are met. To permit registrations of transfers and exchanges, the Company shall execute the Securities, the applicable Guarantors, if any, shall execute the Guarantees endorsed thereon and the Trustee shall authenticate Securities at the Registrar's request.

The Company may require payment of a sum sufficient to cover any tax or other governmental charge that may be imposed in connection with any exchange or registration of transfer of Securities (other than any such transfer taxes or other similar governmental charge payable upon exchanges pursuant to Section 3.11, 9.05 or 11.03). No service charge to any Holder shall be made for any such transaction.

The Company shall not be required to exchange or register a transfer of (a) any Securities of any series for a period of 15 calendar days next preceding the first mailing of notice of redemption of Securities of that series to be redeemed, or (b) any Securities of any series selected, called or being called for redemption except, in the case of any Security of any series where public notice has been given that such Security is to be redeemed in part, the portion thereof not so to be redeemed.

All Securities issued upon any transfer or exchange of Securities shall be valid obligations of the Company, evidencing the same debt, and entitled to the same benefits under this Indenture, as the Securities surrendered upon such transfer or exchange.

SECTION 3.08. Book-Entry Provisions for Global Securities.

(a) Each Global Security initially shall (i) be registered in the name of the Depositary for such Global Securities or the nominee of such Depositary, (ii) be delivered to the Trustee as custodian for such Depositary and (iii) bear legends as set forth in Section 3.06.

Members of, or participants in, the Depositary (“Agent Members”) shall have no rights under this Indenture with respect to any Global Security held on their behalf by the Depositary, or the Trustee as its custodian, or under the Global Security, and the Depositary may be treated by the Company, each Guarantor, if any, the Trustee and any of their respective agents as the absolute owner of such Global Security for all purposes whatsoever. Notwithstanding the foregoing, nothing herein shall prevent the Company, each such Guarantor, the Trustee or any of such agents from giving effect to any written certification, proxy or other authorization furnished by the Depositary or impair, as between the Depositary and its Agent Members, the operation of customary practices governing the exercise of the rights of a holder of any Security.

(b) Transfers of a Global Security shall be limited to transfers of such Global Security in whole, but not in part, to the Depositary for such series, its successors or their respective nominees. The Company may at any time and in its sole discretion determine that the Securities of a series issued in the form of one or more Global Securities shall no longer be represented by such Global Securities. In such event, the Company will execute Securities of such series of like tenor and terms in definitive form in an aggregate Principal Amount equal to the Principal Amount of the Global Security or Securities of such series, the applicable Guarantors, if any, shall execute the Guarantees endorsed thereon and the Trustee, upon receipt of a Company Order, will authenticate and deliver such definitive Securities in exchange for such Global Security or Securities. Interests of beneficial owners in a Global Security may be transferred in accordance with the rules and procedures of the Depositary.

In addition, Physical Securities shall be transferred to all beneficial owners identified by the Depositary in exchange for their beneficial interests in a Global Security, if (i) the Depositary (A) notifies the Company that it is unwilling or unable to continue as Depositary for such Global Security, and a successor depositary is not appointed by the Company within 90 calendar days of such notice, or (B) ceases to be qualified to serve as Depositary and a successor depositary is not appointed by the Company within 90 calendar days of such notice, (ii) the Company executes and delivers to the Trustee a Company Order that such Global Security shall be so transferable, registrable and exchangeable, and such transfers shall be registrable, or (iii) an Event of Default of which the Trustee has actual notice has occurred and is continuing and the Registrar has received a request from a beneficial owner to issue such Physical Securities, and if the Trustee is the Registrar, a Company Order or written confirmation from the Depositary identifying the beneficial owner.

(c) Any beneficial interest in one of the Global Securities that is transferred to a person who takes delivery in the form of an interest in the other Global Security will, upon transfer, cease to be an interest in such Global Security and become an interest in the other Global Security and, accordingly, will thereafter be subject to all transfer restrictions, if any, and other procedures applicable to beneficial interests in such other Global Security for as long as it remains such an interest.

(d) In connection with any transfer of a portion of the beneficial interests in a Global Security to beneficial owners pursuant to paragraph (b) of this Section 3.08, the Registrar shall reflect on its books and records the date and a decrease in the Principal Amount of such Global Security in an amount equal to the Principal Amount of the beneficial interest in such Global Security to be transferred, and the Company shall execute, and the Trustee shall authenticate and make available for delivery, one or more Physical Securities of like tenor and amount.

(e) In connection with the transfer of an entire Global Security to beneficial owners pursuant to paragraph (b) of this Section, such Global Security shall be deemed to be surrendered to the Trustee for cancellation, and the Company shall execute, and upon receipt of a Company Order the Trustee shall authenticate and deliver, to each beneficial owner identified by the Depositary in exchange for its beneficial interest in such Global Security, an equal Principal Amount of Physical Securities of authorized denominations.



(f) The registered holder of a Global Security may grant proxies and otherwise authorize any person, including Agent Members and persons that may hold interests through Agent Members, to take any action which a Holder is entitled to take under this Indenture or the Securities of such series.

SECTION 3.09. Mutilated, Defaced, Destroyed, Lost and Stolen Securities. In case any temporary or definitive Security shall become mutilated, defaced or be apparently destroyed, lost or stolen, the Company in its discretion may execute a new Security of the same series bearing a number not contemporaneously outstanding, the applicable Guarantors, if any, shall execute the Guarantees endorsed thereon and, upon the written request of any officer of the Company and delivery to the Trustee of all documents and certificates as required by this Indenture, the Trustee shall authenticate and make available for delivery such Security, in exchange and substitution for the mutilated or defaced Security, or in lieu of and substitution for the Security so apparently destroyed, lost or stolen. In every case the applicant for a substitute Security shall furnish to the Company, each Guarantor, if any, the Trustee and any of their respective agents, such security or indemnity as may be required by each of them to indemnify and defend and to save each of them harmless and, in every case of destruction, loss or theft evidence to their satisfaction of the apparent destruction, loss or theft of such Security and of the ownership thereof.

Upon the issuance of any substitute Security, the Company may require the payment of a sum sufficient to cover any tax or other governmental charge that may be imposed in relation thereto and any other expenses (including the fees and expenses of the Trustee) connected therewith. In case any Security which has matured or is about to mature, or has been called for redemption in full, shall become mutilated or defaced or be apparently destroyed, lost or stolen, the Company may, instead of issuing a substitute Security of the same series, pay or authorize the payment of the same (without surrender thereof except in the case of a mutilated or defaced Security), if the applicant for such payment shall furnish to the Company, each Guarantor, if any, the Trustee and any of their respective agents such Security or indemnity as any of them may require to save each of them harmless from all risks, however remote, and, in every case of apparent destruction, loss or theft, the applicant shall also furnish to the Company, each such Guarantor, the Trustee and any of such agents evidence to their satisfaction of the apparent destruction, loss or theft of such Security and of the ownership thereof.

Every substitute Security and the Guarantee endorsed thereon, if any, issued pursuant to the provisions of this Section by virtue of the fact that any Security is apparently destroyed, lost or stolen shall constitute an additional contractual obligation of the Company and any Guarantor, as applicable, whether or not the apparently destroyed, lost or stolen Security shall be at any time enforceable by anyone and shall be entitled to all the benefits of (but shall be subject to all the limitations of rights set forth in) this Indenture equally and proportionately with any and all other Securities and the Guarantees endorsed thereon, if any, duly authenticated and delivered hereunder. All Securities shall be held and owned upon the express condition that, to the extent permitted by law, with respect to the holder of a substitute Security, the foregoing provisions are exclusive with respect to the replacement or payment of mutilated, defaced, or apparently destroyed, lost or stolen Securities and shall preclude any and all other rights or remedies notwithstanding any law or statute existing or hereafter enacted to the contrary with respect to the replacement or payment of negotiable instruments or other securities without their surrender.

SECTION 3.10. Cancellation of Securities. All Securities surrendered for payment, redemption, registration of transfer or exchange, if surrendered to the Company, any Guarantor, the Trustee or any of their respective agents, shall be delivered to the Trustee for cancellation or, if surrendered to the Trustee, shall be cancelled by it; and no Securities shall be issued in lieu thereof except as expressly permitted by any of the provisions of this Indenture. The Trustee shall dispose of cancelled Securities in accordance with its customary procedures. If the Company or any Guarantor shall acquire any of the Securities, such acquisition shall not operate as a redemption or satisfaction of the indebtedness represented by such Securities unless and until the same are delivered to the Trustee for cancellation.

SECTION 3.11. Temporary Securities. Pending the preparation of definitive Securities of any series, the Company may execute and the Trustee shall authenticate and make available for delivery temporary Securities of such series (printed, lithographed, typewritten or otherwise reproduced, in each case in form satisfactory to the Trustee). Temporary Securities shall be issuable as registered Securities of such series without coupons, of any authorized denomination, and substantially in the form of the definitive Securities of such series, and if the Securities are to be guaranteed, having endorsed thereon the Guarantees executed by each Guarantor, but in all cases with such appropriate omissions, insertions and variations as may be appropriate for temporary Securities, all as may be determined by the Company and the Guarantors, if any, with the concurrence of the Trustee. Temporary Securities may contain such reference to any provisions of this Indenture as may be appropriate. Every temporary Security shall be executed by the Company and endorsed by each Guarantor, if any, and be authenticated by the Trustee upon the same conditions and in substantially the same manner, and with like effect, as the definitive Securities of such series. Without unreasonable delay the Company shall execute and shall furnish definitive Securities of such series and thereupon temporary Securities of such series may be surrendered in exchange therefor without charge at each office or agency to be maintained by the Company for the purpose pursuant to Section 4.02, and upon delivery to the Trustee of all documents and certificates as required by this Indenture, the Trustee shall authenticate and make available for delivery in exchange for such temporary Securities a like aggregate principal amount of definitive Securities of such series of authorized denominations, and if the Securities are guaranteed, having endorsed thereon the Guarantees executed by each Guarantor. Until so exchanged the temporary Securities of such series shall be entitled to the same benefits under this Indenture as definitive Securities of such series.

SECTION 3.12. CUSIP and ISIN Numbers. The Company in issuing the Securities of any series may use a "CUSIP" and "ISIN" number (if then generally in use), and, if so, the Trustee shall use the CUSIP numbers or ISIN numbers, as the case may be, in notices of redemption or exchange as a convenience to Holders of such series; provided that any such notice shall state that no representation is made as to the correctness of such numbers either as printed on the Securities or as contained in any notice of redemption or exchange and that reliance may be placed only on the other identification numbers printed on the Securities and any such redemption shall not be affected by any defect in or omission of such numbers. The Company shall promptly notify the Trustee of any change in the CUSIP numbers or ISIN numbers.

#### ARTICLE 4

##### CERTAIN COVENANTS

SECTION 4.01. Payment of Principal, Premium and Interest on Securities. The Company, for the benefit of each series of the Securities, will duly and punctually pay or cause to be paid the principal of and any premium and interest on the Securities of that series in accordance with the terms of such Securities and this Indenture.

SECTION 4.02. Maintenance of Office or Agency. The Company will maintain a Payment Office where Securities may be presented or surrendered for payment, where Securities may be surrendered for registration of transfer or exchange, and where notices and demands to or upon the Company in respect of the Securities and this Indenture may be served. The Company will give prompt written notice to the Trustee of the location, and any change in the location of, such office or agency. If at any time the Company shall fail to maintain any such required office or agency or shall fail to furnish the Trustee with the address thereof, such presentations, surrenders, notices and demands may be made or served at the Corporate Trust Office of the Trustee, and the Company hereby initially appoints the Trustee at its office or agency as its agent to receive all such presentations, surrenders, notices and demands.

The Company may also from time to time designate one or more other offices or agencies where the Securities of one or more series may be presented or surrendered for any or all such purposes and may from time to time rescind such designations; provided that no such designation or rescission shall in any manner relieve the Company of its obligation to maintain an office or agency in accordance with the requirements set forth above for Securities of any series for such purposes. The Company will give prompt written notice to the Trustee of any such designation or rescission and of any change in the location of any such other office or agency.

SECTION 4.03. Money for Securities Payments to be Held in Trust.

(a) If the Company shall at any time act as its own Paying Agent with respect to any series of Securities, it will, on or before each due date of the principal of or any premium or interest on any of the Securities of that series, segregate and hold in trust for the benefit of the Persons entitled thereto a sum sufficient to pay the principal and any premium and interest so becoming due until such sums shall be paid to such Persons or otherwise disposed of as herein provided and will promptly notify the Trustee of its action or failure so to act.

(b) Whenever the Company shall have one or more Paying Agents for any series of Securities, it will, prior to each due date of the principal of or any premium or interest on any Securities of that series, deposit with a Paying Agent a sum sufficient to pay such amount, such sum to be held as provided by the Trust Indenture Act, and (unless such Paying Agent is the Trustee) the Company will promptly notify the Trustee of its action or failure so to act.

(c) The Company will cause each Paying Agent for any series of Securities (other than the Trustee) to execute and deliver to the Trustee an instrument in which such Paying Agent will agree with the Trustee, subject to the provisions of this Section 4.03, that such Paying Agent will (i) comply with the provisions of the Trust Indenture Act applicable to it as a Paying Agent; (ii) hold all sums held by it for the payment of the principal of (and premium, if any) or interest, if any, on the Securities of that series in trust for the benefit of the Holders until such sums shall be paid to such Holders or otherwise disposed of as herein provided; (iii) give the Trustee notice of any Default by the Company or any Guarantor (or any other obligor upon the Securities) in the making of any payment of principal (and premium, if any) or interest, if any, on the Securities of that series; and (iv) during the continuance of any Default by the Company (or any other obligor upon the Securities of that series) in the making of any payment in respect of the Securities of that series, and upon the written request of that Trustee, forthwith pay to the Trustee all sums held in trust by such Paying Agent for payment in respect of the Securities of that series.

(d) The Company may at any time, for the purpose of obtaining the satisfaction and discharge of this Indenture or for any other purpose, pay, or by Company Order direct any Paying Agent to pay, to the Trustee all sums held in trust by the Company or such Paying Agent, such sums to be held by the Trustee upon the same trusts as those upon which such sums were held by the Company or such Paying Agent; and, upon such payment by any Paying Agent to the Trustee, such Paying Agent will be released from all further liability with respect to such money.

(e) Any money deposited with the Trustee or any Paying Agent, or then held by the Company, in trust for the payment of the principal of or any premium or interest on any Security of any series and remaining unclaimed for two years after such principal, premium, or interest has become due and payable and was deposited with the Paying Agent will be paid to the Company upon a Company Request (or, if then held by the Company, will be discharged from such trust) subject to any applicable abandoned property law; and the Holder of such Security will thereafter, as an unsecured general creditor, look only to the Company for payment thereof, and all liability of the Trustee or such Paying Agent with respect to such trust money will thereupon cease.

SECTION 4.04. Existence. Subject to Article 10, the Company will do or cause to be done all things necessary to preserve and keep in full force and effect its existence and rights (charter and statutory); provided that the Company will not be required to preserve any such right or franchise if the Board of Directors determines that the preservation thereof is no longer desirable in the conduct of the business of the Company and that the loss thereof will not be disadvantageous in any material respect to the Holders.

SECTION 4.05. Statement by Officers as to Default. The Company and, to the extent required by the TIA, each Guarantor, if any, will deliver to the Trustee, within 120 calendar days after the end of each fiscal year of the Company ending after the first date any series of Securities issued under this Indenture is outstanding, a certificate signed by the principal executive officer, principal financial officer or principal accounting officer of the Company or such Guarantor stating whether or not to the knowledge of such person after due inquiry the Company or such Guarantor is in default in the performance and observance of any of the terms, provisions, and conditions of this Indenture (without regard to any period of grace or requirement of notice provided hereunder) and, if the Company or such Guarantor is in default, specifying all such defaults and the nature and status thereof of which such person may have such knowledge. The Company or such Guarantor shall deliver to the Trustee, as soon as possible and in any event within seven calendar days after any such aforementioned officer of the Company or such Guarantor becomes aware of the occurrence of any Event of Default or an event which, with notice or the lapse of time or both, would constitute an Event of Default, an Officers' Certificate setting forth the details of such Event of Default or default and the action which the Company or such Guarantor proposes to take with respect thereto.

SECTION 4.06. Waiver of Certain Covenants. The Company and each Guarantor, if any, may omit in any particular instance to comply with any term, provision, or condition set forth in this Indenture or any applicable supplemental indenture, with respect to the Securities of any series, if the Holders of a majority in Principal Amount of all outstanding Securities of such series shall, by act of such Holders in accordance with Section 7.01, either waive such compliance in such instance or generally waive compliance with such term, provision, or condition in accordance with Article 9 and Section 5.07, but no such waiver will extend to or affect such term, provision or condition except to the extent so expressly waived, and, until such waiver shall become effective, the obligations of the Company and such Guarantor and the duties of the Trustee in respect of any such term, provision, or condition will remain in full force and effect.

## ARTICLE 5

### REMEDIES OF THE TRUSTEE AND HOLDERS ON EVENT OF DEFAULT

SECTION 5.01. Events of Default. Each of the following events constitutes an “Event of Default” wherever used herein with respect to Securities of any series:

- (a) default for 30 calendar days in the payment when due of interest on the Securities of that series;
- (b) default in payment when due of the principal (whether at Stated Maturity, upon redemption (if applicable), upon any required repurchase by the Company (if applicable) or otherwise) of or premium, if any, on the Securities of that series;
- (c) default by the Company or any Guarantor of such series of Securities in the observance or performance of any other covenant or agreement contained in this Indenture or as specified pursuant to Section 3.01 (other than a default referred to in clauses (a) or (b) above, or an agreement, covenant or provision that has expressly been included in this Indenture solely for the benefit of one or more series of Securities other than that series) which default continues for a period of 60 calendar days after the Company or such Guarantor receives written notice specifying the default (and demanding that such default be remedied) from the Trustee or the Holders of at least 25% of the Principal Amount of Securities of that series then outstanding (with a copy to the Trustee if given by Holders) (except in the case of a default with respect to Section 10.01 of this Indenture, which will constitute an Event of Default with such notice requirement but without such passage of time requirement).
- (d) the entry by a court having jurisdiction in the premises of (i) a decree or order for relief in respect of the Company or a Guarantor of such series of Securities in an involuntary case or proceeding under any applicable federal or state bankruptcy, insolvency, reorganization, or other similar law or (ii) a decree or order adjudging the Company or such Guarantor bankrupt or insolvent, or approving as properly filed a petition seeking reorganization, arrangement, adjustment, or composition of or in respect of the Company or such Guarantor under any applicable federal or state law, or appointing a custodian, receiver, liquidator, assignee, trustee, sequestrator, or other similar official of the Company or such Guarantor or of any substantial part of its property, or ordering the winding up or liquidation of its affairs, and the continuance of any such decree or order for relief or any such other decree or order unstayed and in effect for a period of 60 consecutive calendar days;

(e) the commencement by the Company or a Guarantor of such series of Securities of a voluntary case or proceeding under any applicable federal or state bankruptcy, insolvency, reorganization, or other similar law or of any other case or proceeding to be adjudicated bankrupt or insolvent, or the consent by it to the entry of a decree or order for relief in respect of the Company or such Guarantor in an involuntary case or proceeding under any applicable federal or state bankruptcy, insolvency, reorganization, or other similar law or to the commencement of any bankruptcy or insolvency case or proceeding against it, or the filing by it of a petition or answer or consent seeking reorganization or relief with respect to the Company or such Guarantor under any applicable federal or state bankruptcy, insolvency, reorganization, or other similar law, or the consent by it to the filing of such petition or to the appointment of or taking possession by a custodian, receiver, liquidator, assignee, trustee, sequestrator, or other similar official of the Company or such Guarantor or of any substantial part of its property pursuant to any such law, or the making by it of an assignment for the benefit of creditors, or the admission by it in writing of its inability to pay its debts generally as they become due, or the taking of corporate action by the Company or such Guarantor in furtherance of any such action;

(f) any Guarantee relating to such series Securities shall cease to be in full force and effect (other than in accordance with the terms of this Indenture) or any Guarantor denies or disaffirms its obligations under its Guarantee; or

(g) any other Event of Default with respect to Securities of that series as specified pursuant to Section 3.01, which shall not have been remedied within the specified period after written notice, as specified in Section 5.01(c).

#### SECTION 5.02. Acceleration.

(a) If any Event of Default (other than an Event of Default specified in clause (d) or (e) of Section 5.01) occurs and is continuing with respect to Securities of any series, the Trustee by written notice to the Company or the Holders of at least 25% in aggregate Principal Amount of the then outstanding Securities of that series by written notice to the Company and the Trustee, may declare the unpaid principal of, premium, if any, and any accrued and unpaid interest on all the Securities of the affected series to be due and payable immediately. Except as set forth above, upon such declaration the principal of, premium, if any, and interest shall be due and payable immediately. If an Event of Default specified in clause (d) or (e) of Section 5.01 occurs with respect to the Company or any Guarantor, the unpaid principal of, premium, if any, and any accrued and unpaid interest on all the Securities shall *ipso facto* become and be immediately due and payable without further action or notice on the part of the Trustee or any Holder.

(b) At any time after such a declaration of acceleration with respect to the Securities of any series has been made and before a judgment or decree for payment of the money due has been obtained by the Trustee as hereinafter in this Article 5 provided, the Holders of a majority in Principal Amount of the outstanding Securities of such series, by written notice to the Company and the Trustee, may rescind and annul such declaration and its consequences if (i) the Company or a Guarantor has paid or deposited with the Trustee a sum sufficient to pay (A) all overdue interest on all of the Securities of that series, (B) the principal of (and premium, if any, on) Securities of that series which has become due otherwise than by such declaration of acceleration and any interest thereon at the rate or rates prescribed therefor in the Securities of that series, (C) to the extent that payment of such interest is lawful, interest upon overdue interest at the rate or rates prescribed therefor in the Securities of that series, and (D) all sums paid or advanced by the Trustee hereunder and the reasonable compensation, expenses, disbursements and advances of the Trustee and its agents and counsel and (ii) all Events of Default with respect to the Securities of that series, other than the non-payment of the principal of the Securities of that series which have become due solely by such declaration of acceleration, have been cured or waived as provided in Section 5.04. No such rescission will affect any subsequent default or impair any right consequent thereon.

SECTION 5.03. Other Remedies. If an Event of Default with respect to Securities of any series occurs and is continuing, the Trustee may pursue any available remedy to collect the payment of principal or interest on the Securities of such series or to enforce the performance of any provision of the Securities of such series or this Indenture.

The Trustee may maintain a proceeding even if it does not possess any of the Securities of such series or does not produce any of them in the proceeding and any such proceeding instituted by the Trustee shall be brought in its own name as trustee of an express trust, and any recovery of judgment shall, after provision for the payment of the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel, be for the ratable benefit of the Holders of the Securities in respect of which such judgment has been recovered. A delay or omission by the Trustee or any Holder in exercising any right or remedy accruing upon an Event of Default shall not impair the right or remedy or constitute a waiver of or acquiescence in the Event of Default. All remedies are cumulative to the extent permitted by law.

SECTION 5.04. Waiver of Past Defaults. The Holders of not less than a majority in aggregate Principal Amount of the Securities of any series then outstanding by written notice to the Trustee may on behalf of the Holders of all of the Securities of such series waive any existing Default or Event of Default and its consequences under this Indenture except a continuing Default or Event of Default in the payment of the principal (whether at Stated Maturity, upon redemption (if applicable), upon any required repurchase by the Company (if applicable) or otherwise) of (and premium, if any) or interest, if any, on any Security of such series or, in the case of the Securities of any series that are convertible or exchangeable, in the payment or delivery of any consideration due upon conversion or exchange of the Securities of that series (if applicable). The Company may, but shall not be obligated to, fix a record date for the purpose of determining the Persons entitled to waive any past Default hereunder. If a record date is fixed, the Holders on such record date, or their duly designated proxies, and only such Persons, shall be entitled to waive any Default hereunder, whether or not such Holders remain Holders after such record date. Upon any such waiver, such Default shall cease to exist, and any Event of Default arising therefrom shall be deemed to have been cured for every purpose of this Indenture; but no such waiver shall extend to any subsequent or other Default or impair any right consequent thereon.

SECTION 5.05. Control by Majority. With respect to the Securities of any series, the Holders of a majority in aggregate Principal Amount of the then outstanding Securities of that series may direct the time, method and place of conducting any proceeding for any remedy available to the Trustee or exercising any trust or power conferred on it. However, the Trustee may refuse to follow any direction that conflicts with law or this Indenture, that the Trustee in good faith determines may be unduly prejudicial to the rights of other Holders of that series or that may involve or cause the Trustee any potential liability. The Trustee may take any other action which it deems proper which is not inconsistent with any such direction.

SECTION 5.06. Limitation on Suits. A Holder of any Security of any series may pursue a remedy with respect to this Indenture or the Securities of the applicable series only if:

- (a) the Holder gives to the Trustee written notice of a continuing Event of Default with respect to that series;
- (b) the Holders of at least 25% in aggregate Principal Amount of the then outstanding Securities of that series make a written request to the Trustee to pursue the remedy;
- (c) such Holder or Holders provide to the Trustee indemnity satisfactory to the Trustee against any loss, liability or expense in connection with the pursuance of such remedy;
- (d) during the 60-day period specified in (e) below, the Holders of a majority in aggregate Principal Amount of the then outstanding Securities of such series do not give the Trustee a direction inconsistent with the request; and
- (e) the Trustee does not comply with the request within 60 calendar days after receipt of the notice, request and the offer of indemnity.

Holders shall not have any right in any manner whatever by virtue of, or by availing of, any provision of this Indenture or any Security to affect, disturb or prejudice the rights of any other such Holders or Holders of Securities of any other series, or to obtain or to seek to obtain priority or preference over any other Holders or to enforce any right under this Indenture, except in the manner herein provided and for the equal and ratable benefit of all such Holders.

SECTION 5.07. Rights of Holders to Receive Payment. Notwithstanding any other provision of this Indenture, the right of any Holder to receive payment of principal (whether at Stated Maturity, upon redemption (if applicable), upon any required repurchase by the Company (if applicable) or otherwise) of (and premium, if any) and interest, if any, on any Security or, if applicable, payment or delivery of any consideration due upon conversion or exchange of any Security, in each case, on or after the respective due dates expressed in such Security, or to bring suit for the enforcement of any such payment or delivery on or after such respective dates, shall not be impaired or affected without the consent of the Holder.

SECTION 5.08. Collection Suit by Trustee. If an Event of Default specified in Sections 5.01(a) and 5.01(b) occurs and is continuing, the Trustee is authorized to recover judgment in its own name and as trustee of an express trust against the Company, any Guarantor or any other obligor for the whole amount of principal (and premium, if any) and interest, if any, remaining unpaid on any Securities of such series and interest on overdue principal and, to the extent lawful, interest and such further amount as shall be sufficient to cover amounts due the Trustee under Section 6.07 hereof, including the costs and expenses of collection, including the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel.

SECTION 5.09. Trustee May File Proofs of Claim. The Trustee is authorized to file such proofs of claim and other papers or documents as may be necessary or advisable in order to have the claims of the Trustee (including any claim for the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel) and the Holders allowed in any judicial proceedings relative to the Company or any Guarantor (or any other obligor upon the Securities), its creditors or its property and shall be entitled and empowered to collect, receive and distribute any money or other property payable or deliverable on any such claims and any custodian in any such judicial proceeding is hereby authorized by each Holder to make such payments to the Trustee, and in the event that the Trustee shall consent to the making of such payments directly to the Holders, to pay to the Trustee any amount due to it for the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel, and any other amounts due the Trustee under Section 6.07 hereof. To the extent that the payment of any such compensation, expenses, disbursements and advances of the Trustee, its agents and counsel, and any other amounts due the Trustee under Section 6.07 hereof out of the estate in any such proceeding, shall be denied for any reason, payment of the same shall be secured by a lien on, and shall be paid out of, any and all distributions, dividends, money, securities and other properties which the Holders may be entitled to receive in such proceeding whether in liquidation or under any plan of reorganization or arrangement or otherwise. Nothing herein contained shall be deemed to authorize the Trustee to authorize or consent to or accept or adopt on behalf of any Holder any plan of reorganization, arrangement, adjustment or composition affecting the Securities of any series or the rights of any Holder thereof, or to authorize the Trustee to vote in respect of the claim of any Holder in any such proceeding.

SECTION 5.10. Priorities. If the Trustee collects any money pursuant to this Article, it shall pay out the money in the following order:

First: to the Trustee, its agents and attorneys for amounts due under Section 6.07, including payment of all compensation, expense and liabilities incurred, and all advances made, by the Trustee and the costs and expenses of collection;

Second: to Holders for amounts due and unpaid on the Securities of any series for principal (and premium, if any) and interest, if any, ratably, without preference or priority of any kind, according to the amounts due and payable on the Securities of such series for principal (and premium, if any) and interest, if any, respectively; and

Third: to the Company or, to the extent the Trustee collects any amount pursuant to Section 2.02 hereof from a Guarantor, to such Guarantor, or to such party as a court of competent jurisdiction shall direct.

The Trustee may fix a record date and payment date for any payment to Holders pursuant to this Section 5.10 upon seven calendar days prior notice to the Company.

SECTION 5.11. Undertaking for Costs. In any suit for the enforcement of any right or remedy under this Indenture or in any suit against the Trustee for any action taken or omitted by it as a Trustee, a court in its discretion may require the filing by any party litigant in the suit of an undertaking to pay the costs of the suit, and the court in its discretion may assess reasonable costs, including reasonable attorneys' fees and expenses, against any party litigant in the suit, having due regard to the merits and good faith of the claims or defenses made by the party litigant. This Section 5.11 does not apply to a suit by the Trustee, a suit by a Holder of Securities of the affected series pursuant to Section 5.07 hereof, a suit by Holders of more than 10% in aggregate Principal Amount of the then outstanding Securities of any series in the case of any suit relating to or arising under clause (a), (b), (c), (f) or (g) of Section 5.01, or a suit by Holders of more than 10% in aggregate Principal Amount of the then outstanding Securities of all series in the case of any suit relating to or arising under clause (d) or (e) of Section 5.01.

SECTION 5.12. Restoration of Rights and Remedies. If the Trustee or any Holder has instituted any proceeding to enforce any right or remedy under this Indenture and such proceeding has been discontinued or abandoned for any reason, or has been determined adversely to the Trustee or to such Holder, then and in every such case, subject to any determination in such proceeding, the Company, any Guarantor, the Trustee and the Holders shall be restored severally and respectively to their former positions hereunder and thereafter all rights and remedies of the Trustee and the Holders shall continue as though no such proceeding has been instituted.

SECTION 5.13. Rights and Remedies Cumulative. Except as otherwise provided with respect to the replacement or payment of mutilated, destroyed, lost or stolen Securities in the last paragraph of Section 3.09, no right or remedy herein conferred upon or reserved to the Trustee or to the Holders is intended to be exclusive of any other right or remedy, and every right and remedy shall, to the extent permitted by law, be cumulative and in addition to every other right and remedy given hereunder or now or hereafter existing at law or in equity or otherwise. The assertion or employment of any right or remedy hereunder, or otherwise, shall not prevent the concurrent assertion or employment of any other appropriate right or remedy.

SECTION 5.14. Delay or Omission Not Waiver. No delay or omission of the Trustee or of any Holder of Securities of any series to exercise any right or remedy accruing upon any Event of Default shall impair any such right or remedy or constitute a waiver of any such Event of Default or an acquiescence therein. Every right and remedy given by this Article or by law to the Trustee or to the Holders may be exercised from time to time, and as often as may be deemed expedient, by the Trustee or by the Holders, as the case may be.

## ARTICLE 6

### THE TRUSTEE

SECTION 6.01. Duties and Responsibilities of the Trustee; During Default; Prior to Default. The Trustee, with respect to the Securities of any series, prior to the occurrence of an Event of Default with respect to the Securities of such series and after the curing or waiving of all Events of Default with respect to the Securities of such series which may have occurred, undertakes to perform such duties and only such duties with respect to such series as are specifically set forth in this Indenture. In case an Event of Default with respect to the Securities of a series has occurred (and is continuing which has not been cured or waived) the Trustee shall exercise such of the rights and powers vested in it by this Indenture with respect to such series, and use the same degree of care and skill in their exercise, as a prudent person would exercise or use under the circumstances in the conduct of such person's own affairs.

No provision of this Indenture shall be construed to relieve the Trustee from liability for its own negligent action, its own negligent failure to act or its own willful misconduct, provided that:

(a) the duties and obligations of the Trustee shall be determined solely by the express provisions of this Indenture, and the Trustee shall not be liable except for the performance of such duties and obligations as are specifically set forth in this Indenture, and no implied covenants or obligations shall be read into this Indenture against the Trustee;

(b) in the absence of bad faith on the part of the Trustee, the Trustee may conclusively rely, as to the truth of the statements and the correctness of the opinions expressed therein, upon any statements, certificates or opinions furnished to the Trustee and conforming to the requirements of this Indenture; but in the case of any such statements, certificates or opinions which by any provision hereof are specifically required to be furnished to the Trustee, the Trustee shall be under a duty to examine the same to determine whether or not they conform to the requirements of this Indenture (but need not confirm or investigate the accuracy of any calculation or facts stated therein);



(c) the Trustee shall not be liable for any error of judgment made in good faith by a Responsible Officer, unless it shall be conclusively determined by a court of competent jurisdiction or by such other means as may be agreed by the Company and the Trustee at the time of determination that the Trustee was negligent in ascertaining the pertinent facts; and

(d) the Trustee shall not be liable with respect to any action taken or omitted to be taken by it in good faith in accordance with a Company Order or the direction of the Holders given as provided in Section 5.05 or otherwise exercising any trust or power conferred upon the Trustee, under this Indenture.

None of the provisions contained in this Indenture shall require the Trustee to expend or risk its own funds or otherwise incur any potential or actual liability (financial or otherwise) in the performance of any of its duties or in the exercise of any of its rights or powers, if there shall be reasonable ground for believing that the repayment of such funds or adequate indemnity against such liability is not assured to it. This Section 6.01 is in furtherance of and subject to Sections 315 and 316 of the Trust Indenture Act.

Whether or not therein expressly so provided, every provision of this Indenture relating to the conduct or affecting the liability of or affording protection to the Trustee shall be subject to the provisions of this Article 6.

SECTION 6.02. Certain Rights of the Trustee. In furtherance of and subject to the Trust Indenture Act, and subject to Section 6.01:

(a) the Trustee may conclusively rely and shall be protected in acting or refraining from acting upon any resolution, Officers' Certificate, Opinion of Counsel or any other certificate, statement, instrument, opinion, report, notice, request, consent, order, bond, debenture, note, coupon, security or other paper or document believed by it to be genuine and to have been signed or presented by the proper party or parties;

(b) any request, direction, order or demand of the Company mentioned herein shall be sufficiently evidenced by an Officers' Certificate (unless other evidence in respect thereof be herein specifically prescribed) and the Trustee may request and be entitled to receive an Officers' Certificate before acting or refraining from acting with respect to such request, direction, order or demand; and any resolution of the Board of Directors of the Company or a Guarantor, if any, may be evidenced to the Trustee by a copy thereof certified by the Secretary or an Assistant Secretary of the Company or that Guarantor;

(c) the Trustee may consult with counsel of its selection and any advice or Opinion of Counsel shall be full and complete authorization and protection in respect of any action taken, suffered or omitted to be taken by it hereunder in good faith and in accordance with such advice or Opinion of Counsel;

(d) the Trustee shall be under no obligation to exercise any of the rights or powers vested in it by this Indenture at the request, order or direction of any of the Holders of the Securities of any series pursuant to the provisions of this Indenture, unless such Holders shall have offered and provided to the Trustee security or indemnity satisfactory to it against the costs, expenses and liabilities which might be incurred therein or thereby;

(e) the Trustee shall not be liable for any action taken or omitted by it in good faith and believed by it to be authorized or within the discretion, rights or powers conferred upon it by this Indenture;

(f) the Trustee shall not be bound to make any investigation into the facts or matters stated in any resolution, certificate, statement, instrument, opinion, report, notice, request, consent, order, approval, appraisal, bond, debenture, note, coupon, security, or other paper or document unless requested in writing so to do by the Holders of not less than a majority in aggregate Principal Amount of the Securities of any series then outstanding; provided that, if the payment within a reasonable time to the Trustee of the costs, expenses or liabilities likely to be incurred by it in the making of such investigation is, in the opinion of the Trustee, not assured to the Trustee by the security afforded to it by the terms of this Indenture, the Trustee may require (and shall not be required to make such investigation unless it receives) indemnity satisfactory to it against such expenses or liabilities as a condition to proceeding; the reasonable expenses of every such examination shall be paid by the Company;

(g) the Trustee may execute any of the trusts or powers hereunder or perform any duties hereunder either directly or by or through agents or attorneys not regularly in its employ and the Trustee shall not be responsible for any misconduct or negligence on the part of any such agent or attorney appointed with due care by it hereunder;

(h) the rights, privileges, protections, immunities and benefits given to the Trustee under this Indenture, including, without limitation, its right to be indemnified, are extended to, and shall be enforceable by, the Trustee in each of its capacities hereunder, and to each agent, custodian and other Person employed to act hereunder and the employees, officers and directors of the Trustee;

(i) the Trustee shall not be deemed to have knowledge of any Default or Event of Default unless a Responsible Officer of the Trustee has received from a Holder, the Company or any Guarantor written notice of any event which is in fact such a Default or Event of Default, as the case may be, and such notice references the Securities, this Indenture, the circumstances giving rise to such a Default or Event of Default and that the same has occurred and is continuing; and

(j) The Trustee may request that the Company deliver an Officers' Certificate setting forth the names of individuals and/or titles of officers authorized at such time to take specified actions pursuant to this Indenture, which Officers' Certificate may be signed by any person authorized to sign an Officers' Certificate, including any person specified as so authorized in any such certificate previously delivered and not superseded.

SECTION 6.03. Trustee Not Responsible for Recitals, Disposition of Securities or Application of Proceeds Thereof. The recitals contained herein and in the Securities, except the Trustee's certificates of authentication, shall be taken as the statements of the Company, and the Trustee assumes no responsibility for the correctness of the same. The Trustee makes no representation as to the validity or sufficiency of this Indenture or of the Securities, except that the Trustee represents, that it is duly authorized to execute and deliver this Indenture, authenticate the Securities and perform its obligations hereunder and that the statements made by it in a Statement of Eligibility on Form T-1 supplied to the Company, are true and accurate, subject to the qualifications set forth therein. The Trustee shall not be liable or accountable in any manner for the use or application by the Company of any of the Securities or of the proceeds thereof.

SECTION 6.04. Trustee and Agents May Hold Securities; Collections, Etc. The Trustee or any of its affiliates or any agent of the Company or the Trustee, in its individual or any other capacity, may become the owner or pledgee of Securities, subject to Sections 6.10 and 6.13 with the same rights it would have if it were not the Trustee or such agent and may otherwise deal with the Company, any Guarantor or their respective affiliates and receive, collect, hold and retain collections from the Company with the same rights it would have if it were not the Trustee or such agent. However, in the event that the Trustee acquires any "conflicting interest," as defined in Section 310(b) of the Trust Indenture Act, it must eliminate such conflict within 90 calendar days, apply to the Commission for permission to continue as trustee or resign.

SECTION 6.05. Moneys Held by Trustee. All moneys received by the Trustee shall, until used or applied as herein provided, be held in trust for the purposes for which they were received, but need not be segregated from other funds except to the extent required by mandatory provisions of law. Neither the Trustee nor any agent of the Company or the Trustee shall be under any liability for interest on any moneys received by it hereunder, except as otherwise agreed with the Company.

SECTION 6.06. Notice of Default. If any Default or any Event of Default occurs and is continuing with respect to the Securities of any series and if such Default or Event of Default is actually known to a Responsible Officer of the Trustee, the Trustee shall mail to each Holder of Securities of such series in the manner and to the extent provided in Trust Indenture Act Section 313(c) notice of the Default or Event of Default (“Notice of Default”) within 90 calendar days after it occurs, unless such Default or Event of Default has been cured; provided that, except in the case of a default in the payment of the principal (whether at Stated Maturity, upon redemption (if applicable), upon any required repurchase by the Company (if applicable) or otherwise) of, or interest or premium, if any, on any Security of such series, in the payment or delivery of any consideration due upon conversion or exchange of any Security of such series (if applicable) or in the payment of any sinking fund installment with respect to Securities of such series, the Trustee shall be protected in withholding such notice if and so long as the board of directors, the executive committee or a trust committee of directors and/or Responsible Officers of the Trustee in good faith determine that the withholding of such notice is in the interest of the Holders of Securities of such series.

SECTION 6.07. Compensation and Indemnification of Trustee and Its Prior Claim. The Company covenants and agrees to pay to the Trustee from time to time, and the Trustee shall be entitled to, such compensation as shall be agreed in writing between the Company and the Trustee (which shall not be limited by any provision of law in regard to the compensation of a trustee of an express trust) and the Company covenants and agrees to pay or reimburse the Trustee and each predecessor Trustee upon its request for all reasonable expenses, disbursements and advances incurred or made by or on behalf of it in accordance with any of the provisions of this Indenture (including the reasonable compensation and the expenses and disbursements of its counsel and of all agents and other persons not regularly in its employ) except any such expense, disbursement or advance as may arise from its negligence or bad faith (as determined by a court of competent jurisdiction in a final, non-appealable decision or by such other means as may be agreed by the Company and the Trustee at the time of determination). The Company also covenants to indemnify the Trustee and each predecessor Trustee for, and to hold it harmless against, any and all loss, liability, damage, claim or expense, including taxes (other than taxes based on the income of the Trustee) incurred without negligence or bad faith on its part (as determined by a court of competent jurisdiction in a final, non-appealable decision or by such other means as may be agreed by the Company and the Trustee at the time of determination), arising out of or in connection with the acceptance or administration of this Indenture or the trusts hereunder and its duties hereunder, including without limitation the costs and expenses of defending itself against or investigating any claim (whether asserted by the Company, a Holder or any other Person). The obligations of the Company under this Section to compensate and indemnify the Trustee and each predecessor Trustee and to pay or reimburse the Trustee and each predecessor Trustee for expenses, disbursements and advances shall constitute additional indebtedness hereunder and shall survive the satisfaction and discharge of this Indenture. Such financial obligations of the Company identified in this Section 6.07 shall be a senior claim to that of the Securities of each series, and as security for such obligations, the Trustee shall have a lien prior to such Securities, upon all property and funds held or collected by the Trustee as such, except funds held in trust for the benefit of the Holders of particular Securities, and the Securities of each series are hereby subordinated to such senior claim. Such lien shall survive the discharge and satisfaction of this Indenture.

When the Trustee incurs expenses or renders services in connection with an Event of Default specified in Section 5.01(d) or Section 5.01(e), the expenses (including the reasonable charges and expenses of its counsel) and the compensation for the services are intended to constitute expenses of administration under any applicable federal or state bankruptcy, insolvency or other similar law.

SECTION 6.08. Right of Trustee to Rely on Officers’ Certificate, Etc. Subject to Sections 6.01 and 6.02, whenever in the administration of the trusts of this Indenture the Trustee shall deem it necessary or desirable that a matter be proved or established prior to taking or suffering or omitting any action hereunder, such matter (unless other evidence in respect thereof be herein specifically prescribed) may, in the absence of negligence or bad faith on the part of the Trustee, be deemed to be conclusively proved and established by an Officers’ Certificate delivered to the Trustee, and such certificate, in the absence of negligence or bad faith on the part of the Trustee, shall be full warrant to the Trustee for any action taken, suffered or omitted by it under the provisions of this Indenture upon the faith thereof.

SECTION 6.09. Persons Eligible for Appointment as Trustee. The Trustee hereunder shall at all times be a corporation, national association or other appropriate entity having a combined capital and surplus of at least \$150,000,000, and which is eligible in accordance with the provisions of Section 310(a) of the Trust Indenture Act. If such corporation publishes reports of condition at least annually, pursuant to law or to the requirements of a federal, state or District of Columbia supervising or examining authority, then for the purposes of this Section, the combined capital and surplus of such corporation shall be deemed to be its combined capital and surplus as set forth in its most recent report of condition so published.

SECTION 6.10. Resignation and Removal; Appointment of Successor Trustee.

(a) The Trustee may at any time resign with respect to the Securities of one or more series by giving written notice of resignation to the Company and to the Holders of Securities of such series, such notice to be given by mailing (by first class mail) the same within 30 calendar days after such notice is given to the Company. Upon receiving such notice of resignation, the Company shall promptly appoint a successor trustee by written instrument in duplicate, executed by authority of the Board of Directors of the Company, one copy of which instrument shall be delivered to the resigning Trustee and one copy to the successor trustee. If no successor trustee shall have been so appointed and have accepted appointment within 30 calendar days after the mailing of such notice of resignation, the resigning trustee may petition, at the expense of the Company, any court of competent jurisdiction for the appointment of a successor trustee, or any Holder of the affected series who has been a bona fide holder of the Securities of the affected series for at least six months (or since the Issue Date for such Securities if the holding period is less than six months) may, on behalf of itself and all others similarly situated, petition any such court for the appointment of a successor trustee. Such court may thereupon, after such notice, if any, as it may deem proper and prescribe, appoint a successor trustee.

(b) In case at any time any of the following shall occur:

(i) the Trustee shall fail to comply with the provisions of Section 310(b) of the Trust Indenture Act, after written request therefor by the Company or by any Holder who has been a bona fide holder of Securities of the affected series for at least six months; or

(ii) the Trustee shall cease to be eligible in accordance with the provisions of Section 6.09, and shall fail to resign after written request therefor by the Company or by any such Holder; or

(iii) the Trustee shall become incapable of acting, or shall be adjudged as bankrupt or insolvent, or a receiver or liquidator of the Trustee or of its property shall be appointed, or any public officer shall take charge or control of the Trustee or of its property or affairs for the purpose of rehabilitation, conservation or liquidation;

then, in any such case, the Company may remove the Trustee and appoint a successor trustee by written instrument, in duplicate, executed by authority of the Board of Directors of the Company, one copy of which instrument shall be delivered to the Trustee so removed and one copy to the successor trustee, or, subject to Section 315(e) of the Trust Indenture Act, any Holder of the affected series who has been a bona fide holder of the Securities of the affected series for at least six months may, on behalf of itself and all others similarly situated, petition any court of competent jurisdiction for the removal of the Trustee and the appointment of a successor trustee. Such court may thereupon, after such notice, if any, as it may deem proper and prescribe, remove the Trustee and appoint a successor trustee.

(c) The Holders of a majority in aggregate Principal Amount of the Securities of any series at the time outstanding may at any time remove the Trustee for that series and appoint a successor trustee by delivering to the Trustee so removed, to the successor trustee so appointed and to the Company and any Guarantor the evidence provided for in Section 7.01 of the action in that regard taken by the Holders of that series.

If no successor trustee shall have been so appointed and have accepted appointment 30 calendar days after the mailing of such notice of removal, the Trustee being removed may petition, at the expense of the Company, any court of competent jurisdiction for the appointment of a successor trustee. Such court may thereupon, after such notice, if any, as it may deem proper and prescribe, appoint a successor trustee.

(d) Any resignation or removal of the Trustee and any appointment of a successor trustee pursuant to any of the provisions of this Section 6.10 shall become effective upon acceptance of appointment by the successor trustee as provided in Section 6.11.

(e) The Company shall give notice of each resignation and each removal of the Trustee with respect to the Securities of any series and each appointment of a successor Trustee with respect to the Securities of any series by mailing written notice of such event by first-class mail, postage prepaid, to all Holders of Securities of such series as their names and addresses appear in the Security Register. Each notice shall include the name of the successor Trustee with respect to the Securities of such series and the address of its Corporate Trust Office.

SECTION 6.11. Acceptance of Appointment by Successor.

(a) In case of the appointment hereunder of a successor Trustee with respect to all Securities, every such successor Trustee so appointed shall execute, acknowledge and deliver to the Company and to the retiring Trustee an instrument accepting such appointment, and thereupon the resignation or removal of the retiring Trustee shall become effective and such successor Trustee, without any further act, deed or conveyance, shall become vested with all the rights, powers, trusts and duties of the retiring Trustee; but, on the request of the Company or the successor Trustee, such retiring Trustee shall, upon payment of its fees, costs, expenses and other charges, execute and deliver an instrument transferring to such successor Trustee all the rights, powers and trusts of the retiring Trustee and shall duly assign, transfer and deliver to such successor Trustee all property and money held by such retiring Trustee hereunder.

(b) In case of the appointment hereunder of a successor Trustee with respect to the Securities of one or more (but not all) series, the Company, any applicable Guarantor, the retiring Trustee and each successor Trustee with respect to the Securities of one or more series shall execute and deliver an indenture supplemental hereto wherein each successor Trustee shall accept such appointment and which (1) shall contain such provisions as shall be necessary or desirable to transfer and confirm to, and to vest in, each successor Trustee all the rights, powers, trusts and duties of the retiring Trustee with respect to the Securities of that or those series to which the appointment of such successor Trustee relates, (2) if the retiring Trustee is not retiring with respect to all Securities, shall contain such provisions as shall be deemed necessary or desirable to confirm that all the rights, powers, trusts and duties of the retiring Trustee with respect to the Securities of that or those series as to which the retiring Trustee is not retiring shall continue to be vested in the retiring Trustee, and (3) shall add to or change any of the provisions of this Indenture as shall be necessary to provide for or facilitate the administration of the trusts hereunder by more than one Trustee, it being understood that nothing herein or in such supplemental indenture shall constitute such Trustees co-trustees of the same trust and that each such Trustee shall be trustee of a trust or trusts hereunder separate and apart from any trust or trusts hereunder administered by any other such Trustee; and upon the execution and delivery of such supplemental indenture the resignation or removal of the retiring Trustee shall become effective to the extent provided therein and each such successor Trustee, without any further act, deed or conveyance, shall become vested with all the rights, powers, trusts and duties of the retiring Trustee with respect to the Securities of that or those series to which the appointment of such successor Trustee relates; but, on request of the Company or any successor Trustee, such retiring Trustee shall upon payment of its fees, costs, expenses and other charges duly assign, transfer and deliver to such successor Trustee all property and money held by such retiring Trustee hereunder with respect to the Securities of that or those series to which the appointment of such successor Trustee relates.

(c) Upon request of any such successor Trustee, the Company and any applicable Guarantor shall execute any and all instruments for more fully and certainly vesting in and confirming to such successor Trustee all such rights, powers and trusts referred to in paragraph (a) or (b) of this Section, as the case may be.

(d) No successor Trustee shall accept its appointment unless at the time of such acceptance such successor Trustee shall be qualified and eligible under the Trust Indenture Act.

SECTION 6.12. Merger, Conversion, Consolidation or Succession to Business of Trustee. Any corporation or national association into which the Trustee may be merged or converted or with which it may be consolidated, or to which the Trustee's assets may be sold, or any corporation or national association resulting from any merger, conversion, consolidation or sale to which the Trustee shall be a party or by which the Trustee's property may be bound, or any corporation or national association succeeding to all or substantially all the corporate trust business of the Trustee, shall be the successor of the Trustee hereunder, provided that such entity shall be eligible under the provisions of Section 6.09, without the execution or filing of any paper or any further act on the part of any of the parties hereto, anything herein to the contrary notwithstanding.

In case at the time such successor to the Trustee shall succeed to the trusts created by this Indenture any of the Securities shall have been authenticated but not delivered, any such successor to the Trustee may adopt the certificate of authentication of any predecessor Trustee and deliver such Securities so authenticated; and, in case at that time any of the Securities shall not have been authenticated, any successor to the Trustee may authenticate such Securities either in the name of any predecessor hereunder or in the name of the successor Trustee; and in all such cases such certificate shall have the full force that it is anywhere in the Securities or in this Indenture ; provided that the right to adopt the certificate of authentication of any predecessor Trustee or to authenticate Securities in the name of any predecessor Trustee shall apply only to its successor or successors by merger, conversion or consolidation.

SECTION 6.13. Preferential Collection of Claims. If the Trustee shall be or shall become a creditor, directly or indirectly, secured or unsecured, of the Company (or any other obligor on the Securities), the Trustee shall be subject to the provisions of Section 311 of the Trust Indenture Act regarding the collection of claims against the Company (or any such other obligor). For purposes of Section 311(b) (4) and (6) of such Act, the following terms shall mean:

(a) “cash transaction” means any transaction in which full payment for goods or securities sold is made within seven calendar days after delivery of the goods or securities in currency or in checks or other orders drawn upon banks or bankers and payable upon demand; and

(b) “self-liquidating paper” means any draft, bill of exchange, acceptance or obligation which is made, drawn, negotiated or incurred by the Company for the purpose of financing the purchase, processing, manufacturing, shipment, storage or sale of goods, wares or merchandise and which is secured by documents evidencing title to, possession of, or a lien upon, the goods, wares or merchandise or the receivables or proceeds arising from the sale of the goods, wares or merchandise previously constituting the security, provided the security is received by the Trustee simultaneously with the creation of the creditor relationship with the Company arising from the making, drawing, negotiating or incurring of the draft, bill of exchange, acceptance or obligation.

SECTION 6.14. Communications with the Trustee. Any and all notices, certificates, opinions or filings with the Commission required or permitted to be provided by the Company to the Trustee under this Indenture shall be in writing and shall be personally delivered, sent via an internationally recognized overnight delivery service or sent by facsimile or electronic transmission to the address or telecopy number of the Corporate Trust Office.

SECTION 6.15. Paying Agent/Registrar. If the Trustee is acting as Paying Agent and/or Registrar hereunder, the rights and protections afforded to the Trustee under this Article 6 will also be afforded to the Paying Agent and/or the Registrar.

## ARTICLE 7

### CONCERNING THE HOLDERS

SECTION 7.01. Evidence of Action Taken by Holders. Any request, demand, authorization, direction, notice, consent, waiver or other action provided by this Indenture to be given or taken by Holders of Securities of any series may be embodied in and evidenced (a) by one or more instruments of substantially similar tenor signed by such Holders in person or by agent duly appointed in writing, (b) by the record of the Holders of Securities of such series voting in favor thereof at any meeting of Holders duly called and held in accordance with the provisions of Article 8, or (c) by a combination of such instrument or instruments and any such record of such a meeting of Holders; and, except as herein otherwise expressly provided, such action shall become effective when such instrument or instruments are delivered to the Trustee and, where it is hereby expressly required, to the Company and each Guarantor, if any. Proof of execution of any instrument or of a writing appointing any such agent shall be sufficient for any purpose of this Indenture and (subject to Sections 6.01 and 6.02) conclusive in favor of the Trustee, the Company and each Guarantor, if any, if made in the manner provided in this Article.

SECTION 7.02. Proof of Execution of Instruments and of Holding of Securities; Record Date. Subject to Sections 6.01 and 6.02, the execution of any instrument by a Holder or its agent or proxy may be proved in accordance with such reasonable rules and regulations as may be prescribed by the Trustee or in such manner as shall be satisfactory to the Trustee. The holding of Securities shall be proved by the Security Register or by a certificate of the Registrar thereof. The Company may set a record date for purposes of determining the identity of Holders of Securities entitled to vote or consent to any action referred to in Section 7.01, which record date may be set at any time or from time to time by notice to the Trustee, for any date or dates (in the case of any adjournment or resolicitation) not more than 90 calendar days nor less than 20 calendar days prior to the proposed date of such vote or consent, and thereafter, notwithstanding any other provisions hereof, only Holders of Securities of record on such record date shall be entitled to so vote or give such consent or to withdraw such vote or consent.

SECTION 7.03. Who May Be Deemed Owners of Securities. The Company, each Guarantor, if any, the Trustee, any Paying Agent and any Registrar may deem and treat the person in whose name any Security of any series shall be registered in the Security Register on the applicable record date as the absolute owner of such Security (whether or not such Security shall be overdue and notwithstanding any notation of ownership or other writing thereon) for the purpose of receiving payment of or on account of the principal of (and premium, if any) and interest, if any, on such Security and for all other purposes; and none of the Company, any Guarantor, the Trustee, any Paying Agent or any Registrar shall be affected by any notice to the contrary. All such payments so made to, or upon the order of, any Holders shall be valid, and, to the extent of the sum or sums so paid, effectual to satisfy and discharge the liability of moneys payable upon any such Security.

SECTION 7.04. Securities Owned by Company Deemed Not Outstanding. In determining whether the Holders of the requisite aggregate Principal Amount of Securities of any series have concurred in any direction, consent or waiver under this Indenture, Securities of such series which are owned by the Company, any Guarantor with respect to such series or any other obligor on the Securities of such series or by any person directly or indirectly controlling or controlled by or under direct or indirect common control with the Company, any such Guarantor or any other obligor on the Securities of such series shall be disregarded and deemed not to be outstanding for the purpose of any such determination, except that for the purpose of determining whether the Trustee shall be protected in relying on any such direction, consent or waiver only Securities which a Responsible Officer of the Trustee actually knows are so owned shall be so disregarded. Securities so owned which have been pledged in good faith may be regarded as outstanding if the pledgee establishes to the satisfaction of the Trustee the pledgee's right so to act with respect to such Securities and that the pledgee is not the Company, any Guarantor or any other obligor upon the Securities or any person directly or indirectly controlling or controlled by or under direct or indirect common control with the Company, any Guarantor or any other obligor on the Securities. In case of a dispute as to such right, the advice of counsel shall be full protection in respect of any decision made by the Trustee in accordance with such advice. Upon request of the Trustee, the Company shall furnish to the Trustee promptly an Officers' Certificate listing and identifying all Securities of any series, if any, known by the Company to be owned or held by or for the account of any of the above-described persons; and, subject to Sections 6.01 and 6.02, the Trustee shall be entitled to accept such Officers' Certificate as conclusive evidence of the facts therein set forth and of the fact that all Securities of such series not listed therein are outstanding for the purpose of any such determination.

SECTION 7.05. Record Date for Action by Holders. Whenever in this Indenture it is provided that Holders of a specified percentage in aggregate principal amount of the Securities of any series may take any action (including the making of any demand or request, the giving of any direction, notice, consent or waiver or the taking of any other action), other than any action taken at a meeting of Holders of such series called pursuant to Article 8, the Company may, but shall not be obligated to, fix a record date, which need not be the date provided in TIA Section 316(c) to the extent it would otherwise be applicable, for the purpose of determining the Holders entitled to give their consent or take any other action described above or required or permitted to be taken pursuant to this Indenture. If a record date is fixed, then notwithstanding Section 7.06, those Persons who were Holders at such record date (or their duly designated proxies), and only those Persons, shall be entitled to give such consent or to revoke any consent previously given or to take any such action, whether or not such Persons continue to be Holders after such record date. No such consent shall be valid or effective for more than 90 days after such record date.

SECTION 7.06. Right of Revocation of Action Taken. At any time prior to (but not after) the evidencing to the Trustee, as provided in Section 7.01, of the taking of any action by the Holders of the percentage in aggregate Principal Amount of the Securities of any series specified in this Indenture in connection with such action, any Holder of a Security the serial number of which is shown by the evidence to be included among the serial numbers of the Securities of the series the Holders of which have consented to such action may, by filing written notice at the Corporate Trust Office and upon proof of holding as provided in this Article 7, revoke such action so far as concerns such Security. Except as aforesaid, any such action taken by the Holder of any Security shall be conclusive and binding upon such Holder and upon all future holders and owners of such Security and of any Securities issued in exchange or substitution therefor, irrespective of whether or not any notation in regard thereto is made upon any such Security. Any action taken by the Holders of the percentage in aggregate Principal Amount of the Securities of any series specified in this Indenture in connection with such action shall be conclusively binding upon the Company, each Guarantor with respect to such series, if any, the Trustee and the Holders of all the Securities of such series.

ARTICLE 8

MEETINGS OF HOLDERS

SECTION 8.01. Purposes for Which Meeting May Be Called. A meeting of Holders of Securities of any series may be called at any time and from time to time pursuant to the provisions of this Article 8 for any of the following purposes:

- (a) to give any notice to the Company, any Guarantor or to the Trustee, or to give any directions to the Trustee, or to consent to the waiving of any Default or Event of Default with respect to the Securities of such series hereunder and its consequences, or take any other action authorized to be taken by Holders of such series pursuant to any of the provisions of Article 5;
- (b) to remove the Trustee and appoint a successor trustee with respect to the Securities of such series pursuant to the provisions of Article 6;
- (c) to consent to the execution of an indenture or indentures supplemental hereto pursuant to the provisions of Section 9.02; or
- (d) to take any other action authorized to be taken by or on behalf of the Holders of the percentage in aggregate Principal Amount of the Securities of such series under any other provisions of this Indenture or under applicable law.

SECTION 8.02. Manner of Calling Meetings; Record Date. The Trustee may at any time call a meeting of Holders of any series to take any action specified in Section 8.01, to be held at such time and at such place in [●], or as the Trustee shall determine. Notice of every meeting of Holders of any series setting forth the time and the place of such meeting and in general terms the action proposed to be taken at such meeting, shall be mailed not less than 30 nor more than 60 calendar days prior to the date fixed for the meeting to such Holders at their registered addresses. For the purpose of determining Holders entitled to notice of any meeting of Holders, the Trustee shall fix in advance a date as the record date for such determination, such date to be a Business Day not more than 10 calendar days prior to the date of the mailing of such notice as hereinabove provided. Only persons in whose name a Security of such series is registered upon the books of the Company on a record date fixed by the Trustee as aforesaid, or by the Company or the Holders as in Section 8.03 provided, shall be entitled to notice of the meeting of Holders with respect to which such record date was so fixed.

SECTION 8.03. Call of Meeting by Company or Holders. In case at any time the Company or a Guarantor, if any, pursuant to a resolution of its Board of Directors, or the Holders of at least 10 percent in aggregate principal amount of the Securities of any series then outstanding, shall have requested the Trustee to call a meeting of the Holders of such series to take any action authorized in Section 8.01 by written request setting forth in reasonable detail the action proposed to be taken at the meeting, and the Trustee shall not have mailed notice of such meeting within 20 calendar days after receipt of such request, then the Company, any such Guarantor or the Holders of Securities of such series in the amount above specified may fix the record date with respect to, and determine the time and the place for, such meeting and may call such meeting to take any action authorized in Section 8.01, by mailing notice thereof as provided in Section 8.02. The record date fixed as provided in the preceding sentence shall be set forth in a written notice to the Trustee and shall be a Business Day not less than 15 nor more than 20 calendar days after the date on which such notice is sent to the Trustee.



SECTION 8.04. Who May Attend and Vote at Meeting. To be entitled to vote at any meeting of Holders of any series, a person shall be a Holder of one or more Securities of such series. The only persons who shall be entitled to be present or to speak at any meeting of Holders of any series shall be the persons entitled to vote at such meeting and their counsel, any representatives of the Trustee and its counsel, any representatives of the Company and its counsel, and any representatives of any Guarantor of such Securities and its counsel. When a determination of Holders entitled to vote at any meeting of Holders has been made as provided in this Section 8.04, such determination shall apply to any adjournment thereof.

SECTION 8.05. Regulations. Notwithstanding any other provisions of this Indenture, the Trustee may make such reasonable regulations as it may deem advisable for any meeting of Holders of any series, in regard to proof of the holding of the Securities of such series and of the appointment of proxies, and in regard to the appointment and duties of inspectors of votes, the submission and examination of proxies, certificates and other evidence of the right to vote, and such other matters concerning the conduct of the meeting as it shall think fit. Except as otherwise permitted or required by any such regulations, the holding of the Securities of such series shall be provided in the manner specified in Section 8.06.

The Trustee shall, by an instrument in writing, appoint a temporary chairman of the meeting, unless the meeting shall have been called by the Company or by Holders as provided in Section 8.03, in which case the Company or the Holders calling the meeting, as the case may be, shall in like manner appoint a temporary chairman. A permanent chairman and a permanent secretary of the meeting shall be elected by a vote of the Holders of a majority in Principal Amount of the Securities represented at the meeting and entitled to vote.

Subject to the provisions of Section 7.04, at any meeting each Holder or proxy entitled to vote thereat shall be entitled to one vote for each \$1,000 principal amount of Securities of such series held or represented by him; provided that no vote shall be cast or counted at any meeting in respect of any Security challenged as not outstanding and ruled by the chairman of the meeting to be not outstanding. The chairman of the meeting shall have no right to vote other than by virtue of Securities held by him or instruments in writing as aforesaid duly designating him as the person to vote on behalf of other Holders. Any meeting of Holders duly called pursuant to the provisions of Section 8.02 or 8.03 may be adjourned from time to time, and the meeting may be held as so adjourned without further notice.

At any meeting of Holders of any series, the presence of persons who held, or who are acting as proxy for persons who held, an aggregate Principal Amount of Securities of such series on the record date for such meeting sufficient to take action on the business for the transaction of which such meeting was called shall constitute a quorum, but, if less than a quorum is present, the persons holding or representing a majority in aggregate Principal Amount of the Securities of such series represented at the meeting may adjourn such meeting with the same effect, for all intents and purposes, as though a quorum had been present.

SECTION 8.06. Manner of Voting at Meetings and Record to be Kept. The vote upon any resolution submitted to any meeting of Holders of any series shall be by written ballots on each of which shall be subscribed the signature of the Holder or proxy casting such ballot and the identifying number or numbers of the Securities of such series held or represented in respect of which such ballot is cast. The permanent chairman of the meeting shall appoint two inspectors of votes who shall count all votes cast at the meeting for or against any resolution and who shall make and file with the secretary of the meeting their verified written reports in duplicate of all votes cast at the meeting. A record in duplicate of the proceedings of each meeting of Holders shall be prepared by the secretary of the meeting and there shall be attached to said record the original reports of the inspectors of votes on any vote by ballot taken thereat and affidavits by one or more persons having knowledge of the facts setting forth a copy of the notice of the meeting and showing that said notice was mailed as provided in Section 8.02. The record shall show the identifying numbers of the Securities of such series voting in favor of or against any resolution. Each counterpart of such record shall be signed and verified by the affidavits of the permanent chairman and secretary of the meeting and one of the counterparts shall be delivered to the Company and the other to the Trustee to be preserved by the Trustee.

Any counterpart record so signed and verified shall be conclusive evidence of the matters therein stated and shall be the record referred to in clause (b) of Section 7.01.

SECTION 8.07. Exercise of Rights of Trustee and Holders Not to be Hindered or Delayed. Nothing in this Article 8 contained shall be deemed or construed to authorize or permit, by reason of any call of a meeting of Holders or any rights expressly or impliedly conferred hereunder to make such call, any hindrance or delay in the exercise of any right or rights conferred upon or reserved to the Trustee or to the Holders of any series under any of the provisions of this Indenture or of the Securities of such series.

## ARTICLE 9

### SUPPLEMENTAL INDENTURES

SECTION 9.01. Supplemental Indentures Without Consent of Holders. The Company, the Guarantors, if any, and the Trustee may amend or supplement this Indenture or the Securities of any series or waive any provision hereof or thereof without the consent of any Holder:

- (a) to cure any ambiguity, defect or inconsistency in a manner that does not, individually or in the aggregate with all other changes, adversely affect the rights of any Holder of the Securities of any series in any material respect;
- (b) to provide for uncertificated Securities in addition to or in place of certificated Securities;
- (c) to evidence the assumption of the obligations of the Company or a Guarantor to the Holders of the Securities in the case of any transaction pursuant to Article 10 hereof;
- (d) to evidence and provide for the acceptance of appointment hereunder by a successor trustee and to add to or change any of the provisions of the Indenture as shall be necessary to provide for or facilitate the administration of the trusts hereunder by more than one trustee;
- (e) to make any change that would provide any additional rights or benefits to the Holders of all or any series of Securities or that does not adversely affect the legal rights hereunder of any such Holder;
- (f) to comply with requirements of the Commission in order to effect or maintain the qualification of this Indenture under the Trust Indenture Act;
- (g) to establish the form or terms of Securities of any series as permitted by Sections 2.01 and 3.01;
- (h) to secure the Company's obligations in respect of the Securities of any series;
- (i) to add an additional Guarantor in respect of the Securities of any series.
- (j) in the case of convertible or exchangeable Securities of any series, subject to the provisions of the supplemental indenture for such series of Securities, to provide for conversion rights, exchange rights and/or repurchase rights of Holders of such series of Securities in connection with any reclassification or change of the Company's common stock or in the event of any amalgamation, consolidation, merger or sale of all or substantially all of the assets of the Company or its Subsidiaries substantially as an entirety occurs;
- (k) in the case of convertible or exchangeable Securities of any series, to reduce the conversion price or exchange price applicable to such series of Securities;
- (l) in the case of convertible or exchangeable Securities of any series, to increase the conversion rate or exchange ratio in the manner described in the supplemental indenture for such series of Securities, provided that the increase will not adversely affect the interests of the Holders of the Securities of such series in any material respect; or
- (m) any other action to amend or supplement the Indenture or the Securities of any series as set forth in the supplemental indenture establishing the terms of the Securities of that series as provided in Section 3.01(b).

Upon the request of the Company accompanied by a resolution of its Board of Directors authorizing the execution of any such supplemental indenture, and upon receipt by the Trustee of the documents described in Section 9.04 hereof, the Trustee shall join with the Company and the Guarantors, if any, in the execution of any supplemental indenture authorized or permitted by the terms of this Indenture and to make any further appropriate agreements and stipulations which may be therein contained, but the Trustee shall not be obligated to enter into such supplemental indenture which affects its own rights, duties or immunities under this Indenture or otherwise.

**SECTION 9.02. With Consent of Holders.** Except as provided in the next succeeding paragraphs, this Indenture or the Securities may be amended or supplemented with the consent of the Holders of at least a majority in aggregate Principal Amount of all the Securities then outstanding affected by such supplemental indenture (acting as a single class).

Upon the request of the Company accompanied by a resolution of its Board of Directors authorizing the execution of any such supplemental indenture, and upon the filing with the Trustee of evidence satisfactory to the Trustee of the consent of the Holders as aforesaid, and upon receipt by the Trustee of the documents described in Section 9.04 hereof, the Trustee shall join with the Company and the Guarantors, if any, in the execution of such supplemental indenture unless such supplemental indenture affects the Trustee's own rights, duties or immunities under this Indenture or otherwise, in which case the Trustee may in its discretion, but shall not be obligated to, enter into such supplemental indenture.

It shall not be necessary for the consent of the Holders under this Section 9.02 to approve the particular form of any proposed amendment or waiver, but it shall be sufficient if such consent approves the substance thereof.

After an amendment, supplement or waiver under this Section becomes effective, the Company shall mail to the Holders affected thereby a notice briefly describing the amendment, supplement or waiver. Any failure of the Company to mail such notice, or any defect therein, shall not, however, in any way impair or affect the validity of any such supplemental indenture or waiver. Subject to Sections 5.02(b), 5.04 and 5.07 hereof, the application of or compliance with, either generally or in a particular instance, of any provision of this Indenture or the Securities may be waived as to each series of Securities by the Holders of a majority in aggregate principal amount of the outstanding Securities of that series.

Without the consent of each Holder affected hereby, however, an amendment or waiver may not:

- (a) reduce the percentage in Principal Amount of Securities of any series whose Holders must consent to an amendment, supplement or waiver;
- (b) change the Stated Maturity of the principal of, or any installment of principal of or interest on, or time for payment of interest on, any Security, or reduce the Principal Amount thereof or the rate of interest thereon or any premium payable upon the redemption thereof, or change any Payment Office where, or the coin or currency in which, any Security or any premium or interest thereon is payable, or impair the right to institute suit for the enforcement of any such payment on or after the Stated Maturity thereof (or, in the case of redemption, on or after the redemption date);
- (c) modify any of the provisions of this Section 9.02, Section 5.04 or Section 4.06, except to increase the percentage in Principal Amount of Holders required under any such Section or to provide that certain other provisions of this Indenture cannot be modified or waived without the consent of the Holder of each outstanding Security affected thereby, provided that this clause (c) will not be deemed to require the consent of any Holder with respect to changes in the references to "the Trustee" and concomitant changes in this Section 9.02, Section 5.02(b), Section 5.04 and Section 4.06, or the deletion of this proviso, in accordance with the requirements of Section 6.11;
- (d) impair the rights of Holders of the Securities of any series that are exchangeable or convertible to receive payment or delivery of any consideration due upon the conversion or exchange of the Securities of that series;

(e) change in any manner adverse to the interests of the Holders of any outstanding Securities the terms and conditions of the obligations of the Guarantors, if applicable, in respect of the due and punctual payment of the principal thereof (and premium, if any, thereon) and interest thereon or any additional amounts or any sinking fund or analogous payments provided in respect thereof; or

(f) modify or amend any of the provisions of the Indenture or Securities of any series as may be set forth in the supplemental indenture with respect to the Securities of that series as requiring the consent of each Holder affected thereby.

SECTION 9.03. Effect of Supplemental Indenture. Upon the execution of any supplemental indenture pursuant to the provisions hereof, this Indenture shall be and be deemed to be modified and amended in accordance therewith and the respective rights, limitations of rights, obligations, duties and immunities under this Indenture of the Trustee, the Company, each Guarantor, if any, and the Holders shall thereafter be determined, exercised and enforced hereunder subject in all respects to such modifications and amendments, and all the terms and conditions of any such supplemental indenture shall be and be deemed to be part of the terms and conditions of this Indenture for any and all purposes.

SECTION 9.04. Documents to Be Given to Trustee; Compliance with TIA. The Trustee, subject to the provisions of Sections 6.01 and 6.02, shall be entitled to receive and conclusively rely upon an Officers' Certificate and an Opinion of Counsel as conclusive evidence that any such supplemental indenture is permitted or authorized under and otherwise complies with the applicable provisions of this Indenture. Every such supplemental indenture shall comply with the TIA.

SECTION 9.05. Notation on Securities in Respect of Supplemental Indentures. Securities authenticated and delivered after the execution of any supplemental indenture pursuant to the provisions of this Article may bear a notation approved by the Trustee as to form (but not as to substance) as to any matter provided for by such supplemental indenture or as to any action taken at any such meeting. If the Company, any applicable Guarantor or the Trustee shall so determine, new Securities of any series so modified as to conform, in the opinion of the Trustee and the Board of Directors of the Company, to any modification of this Indenture contained in any such supplemental indenture may be prepared by the Company, endorsed by any such Guarantor, authenticated by the Trustee and delivered in exchange for the Securities of such series then outstanding.

## ARTICLE 10

### CONSOLIDATION, MERGER OR SALE OF ASSETS

SECTION 10.01. When the Company May Merge, Etc. The Company shall not consolidate with or merge with or into, or sell, transfer, lease, convey or otherwise dispose of all or substantially all of its assets to, another Person (including pursuant to a statutory arrangement), whether in a single transaction or series of related transactions, unless:

(a) the Company is the surviving entity or the Person formed by or surviving any such consolidation or merger or to which such sale, transfer, lease, conveyance or other disposition is made shall be a Person organized and existing under the laws of the United States of America or any State or the District of Columbia, and shall expressly assume, by an indenture supplemental hereto, executed and delivered to the Trustee, the due and punctual payment of the principal of (and premium, if any) and interest, if any, on all the Securities and the performance or observance of every covenant of this Indenture of the part of the Company to be performed or observed;

(b) immediately after giving effect to such transaction, no Event of Default, and no event which, after notice or lapse of time, or both, would become an Event of Default, shall have happened and be continuing; and

(c) the Company has delivered to the Trustee an Officers' Certificate and an Opinion of Counsel each stating that such consolidation, merger, conveyance or transfer and, if a supplemental indenture is required in connection with such transaction, such supplemental indenture comply with this Article and that all conditions precedent herein provided for relating to such transaction have been complied with.

SECTION 10.02. Successor Person Substituted. Upon any consolidation or merger, or any sale, transfer, lease, conveyance or other disposition of all or substantially all of the assets of the Company in accordance with Section 10.01 hereof, the successor Person formed by such consolidation or into or with which the Company is merged or to which such sale, transfer, lease, conveyance or other disposition is made shall succeed to, and, except in the case of a lease, be substituted for (so that from and after the date of such consolidation, merger, sale, transfer, conveyance or other disposition, the provisions of this Indenture referring to the "Company" shall refer instead to the successor Person), and may exercise every right and power of, the Company under this Indenture with the same effect as if such successor Person had been named as the Company herein.

In case of any such consolidation, merger, sale, transfer, lease, conveyance or other disposition such changes in phraseology and form (but not in substance) may be made in the Securities thereafter to be issued as may be appropriate. Notwithstanding the foregoing, (i) a consolidation or merger by the Company with or into, or (ii) the sale, transfer, lease, conveyance or other disposition by the Company of all or substantially all of its assets to, one or more of its Subsidiaries shall not relieve the Company from its obligations under this Indenture and the Securities.

SECTION 10.03. Opinion of Counsel to Trustee. The Trustee, subject to the provisions of Sections 6.01 and 6.02, may receive an Opinion of Counsel as conclusive evidence that any such consolidation, merger, sale, transfer, lease, conveyance or other disposition complies with the applicable provisions of this Indenture.

## ARTICLE 11

### REDEMPTION OF SECURITIES

SECTION 11.01. Applicability of Article. Securities of any series which are redeemable before their Stated Maturity shall be redeemable in accordance with their terms and (except as otherwise specified as contemplated by Section 3.01 for Securities of any series) in accordance with this Article.

SECTION 11.02. Notice of Redemption; Partial Redemptions. Notice of redemption to the Holders of Securities of any series to be redeemed as a whole or in part shall be given by mailing notice of such redemption by first class mail, postage prepaid, at least 30 calendar days and not more than 60 calendar days prior to the date fixed for redemption to such Holders of Securities at their last addresses as they shall appear upon the registry books. Any notice which is mailed in the manner herein provided shall be conclusively presumed to have been duly given, whether or not the Holder receives the notice. Failure to give notice by mail, or any defect in the notice to the Holder of any Security designated for redemption as a whole or in part shall not affect the validity of the proceedings for the redemption of any other Security.

The notice of redemption to each such Holder shall identify the Securities to be redeemed (including CUSIP numbers) and shall specify the Principal Amount of each Security held by such Holder to be redeemed, the date fixed for redemption, the redemption price, the place or places of payment, that payment will be made upon presentation and surrender of such Securities, that interest accrued to the date fixed for redemption will be paid as specified in said notice and that on and after said date interest thereon or on the portions thereof to be redeemed will cease to accrue. In case any Security is to be redeemed in part only the notice of redemption shall state the portion of the Principal Amount thereof to be redeemed and shall state that on and after the date fixed for redemption, upon surrender of such Security, a new Security or Securities in Principal Amount equal to the unredeemed portion thereof will be issued.

The notice of redemption of Securities of any series to be redeemed at the option of the Company shall be given by the Company or, at the Company's request, by the Trustee in the name and at the expense of the Company.

No later than 10:00 a.m. New York City time on the redemption date specified in the notice of redemption given as provided in this Section, the Company will deposit with the Trustee or with one or more Paying Agents (or, if the Company is acting as its own Paying Agent, set aside, segregate and hold in trust) an amount of money sufficient to redeem on the redemption date all the Securities of a series so called for redemption at the appropriate redemption price, together with accrued interest to the date fixed for redemption. The Company will deliver to the Trustee at least 30 calendar days prior to the date fixed for redemption an Officers' Certificate stating the aggregate Principal Amount of Securities of such series to be redeemed.

If less than all the Securities of a series are to be redeemed, the Trustee shall select, either pro rata, by lot or by any other method it shall deem fair and reasonable, Securities to be redeemed in whole or in part. Securities may be redeemed in part only in denominations equal to the minimum authorized denomination for Securities of that series or any integral multiple thereof. The Trustee shall promptly notify the Company in writing of the Securities selected for redemption and, in the case of any Securities selected for partial redemption, the Principal Amount thereof to be redeemed. For all purposes of this Indenture, unless the context otherwise requires, all provisions relating to the redemption of Securities shall relate, in the case of any Security redeemed or to be redeemed only in part, to the portion of the Principal Amount of such Security which has been or is to be redeemed.

SECTION 11.03. Payment of Securities Called for Redemption. If notice of redemption has been given as above provided, the Securities or portions of Securities specified in such notice shall become due and payable on the date and at the place stated in such notice at the applicable redemption price, together with interest accrued to, but not including, the date fixed for redemption, and on and after said date (unless the Company and any Guarantors shall default in the payment of such Securities at the redemption price, together with interest accrued to said date) interest on the Securities or portions of Securities so called for redemption shall cease to accrue and, except as provided in Sections 6.05 and 12.06, such Securities shall cease from and after the date fixed for redemption to be entitled to any benefit or security under this Indenture, and the Holders thereof shall have no right in respect of such Securities except the right to receive the redemption price thereof and unpaid interest to the date fixed for redemption. On presentation and surrender of such Securities at a Payment Office specified in said notice, said Securities or the specified portions thereof shall be paid and redeemed by the Company at the applicable redemption price, together with interest accrued thereon to, but not including, the date fixed for redemption; provided that any payment of interest becoming due on the date fixed for redemption shall be payable to the Holders of such Securities registered as such on the relevant Regular Record Date subject to the terms and provisions of Section 3.05 hereof.

If any Security called for redemption shall not be so paid upon surrender thereof for redemption, the principal shall, until paid or duly provided for, bear interest from the date fixed for redemption at the rate borne by the Security.

Upon presentation of any Securities redeemed in part only, the Company shall execute, the Guarantors, if any, shall, execute the Guarantees endorsed thereon, and the Trustee shall authenticate and make available for delivery to or on the order of the Holder thereof, at the expense of the Company, new Securities of authorized denominations, in Principal Amount equal to the unredeemed portion of the Securities so presented.

## ARTICLE 12

### DEFEASANCE AND COVENANT DEFEASANCE

SECTION 12.01. Applicability of the Article; Company's Option to Effect Defeasance or Covenant Defeasance. Unless pursuant to Section 3.01 provision is made for the inapplicability of either or both of (a) defeasance of the Securities of a series under Section 12.02 or (b) covenant defeasance of the Securities of a series under Section 12.03, then the provisions of such Section or Sections, as the case may be, together with the other provisions of this Article, shall be applicable to the Securities of such series, and the Company may, at its option, by resolution of its Board of Directors, at any time, elect to have either Section 12.02 or Section 12.03 applied to the outstanding Securities of a series upon compliance with the conditions set forth below in this Article 12.

SECTION 12.02. Legal Defeasance and Discharge. Upon the Company's exercise of the option provided under Section 12.01 hereof to defease the outstanding Securities of a particular series under this Section 12.02, the Company and any Guarantors shall be deemed to have been discharged from its obligations with respect to such outstanding Securities and related Guarantees on the date the conditions set forth below are satisfied (hereinafter, "Legal Defeasance"). For this purpose, such Legal Defeasance means that the Company shall be deemed to have paid and discharged the entire indebtedness represented by the outstanding Securities of such series, which shall thereafter be deemed to be "outstanding" only for the purposes of Section 12.05 hereof and the other Sections of this Indenture referred to in clauses (i) and (ii) of this Section 12.02, and to have satisfied all its other obligations under such Securities and this Indenture (and the Trustee, on demand of and at the expense of the Company shall execute proper instruments acknowledging the same), except for the following provisions which shall survive until otherwise terminated or discharged hereunder: (i) the rights of Holders of outstanding Securities of such series to receive solely from the trust fund described in Section 12.04 hereof, and as more fully set forth in such Section, payments in respect of the principal of (and premium, if any) and interest, if any, on such Securities when such payments are due, (ii) the obligations of the Company or any Guarantor with respect to such Securities under Sections 3.06, 3.07, 3.08(a), 3.09, 3.11, and 12.05 hereof, (iii) the rights, powers, trusts, duties and immunities of the Trustee hereunder, including, without limitation, the Trustee's rights under Section 6.07 hereof, and the obligations of the Company or any Guarantor in connection therewith and with this Article 12. Subject to compliance with this Article 12, the Company may exercise its option under this Section 12.02 notwithstanding the prior exercise of its option under Section 12.03 hereof with respect to the Securities of such series.

SECTION 12.03. Covenant Defeasance. Upon the Company's exercise of the option provided under Section 12.01 hereof to obtain a covenant defeasance with respect to the outstanding Securities of a particular series under this Section 12.03, the Company and any Guarantors shall be released from their obligations under the covenants contained in Article 4 and Section 10.01 hereof and the covenants contained in any supplemental indenture applicable to such series, with respect to the outstanding Securities of such series on and after the date the conditions set forth below are satisfied (hereinafter, "Covenant Defeasance"), and the Securities of such series shall thereafter be deemed not outstanding for the purposes of any direction, waiver, consent or declaration or act of Holders (and the consequences of any thereof) in connection with such covenants, but shall continue to be deemed outstanding for all other purposes hereunder. For this purpose, such Covenant Defeasance means that, with respect to the outstanding Securities of such series, the Company or any Guarantors may omit to comply with and shall have no liability in respect of any term, condition or limitation set forth in any such covenant, whether directly or indirectly, by reason of any reference elsewhere herein to any such covenant or by reason of any reference in any such covenant to any other provision herein or in any other document and such omission to comply shall not constitute a Default or an Event of Default under Section 5.01(c) or Section 5.01(g) with respect to outstanding Securities of such series, but, except as specified above, the remainder of this Indenture and of the Securities of such series shall be unaffected thereby.

SECTION 12.04. Conditions to Legal or Covenant Defeasance. The following shall be the conditions to the application of either Section 12.02 or Section 12.03 hereof to the outstanding Securities of a particular series:

(a) The Company shall irrevocably have deposited or caused to be deposited with the Trustee (or another trustee satisfying the requirements of Section 6.09 who shall agree to comply with the provisions of this Article 12 applicable to it) as trust funds in trust for the purpose of making the following payments, specifically pledged as security for, and dedicated solely to, the benefit of the Holders of such Securities, (i) an amount (in such currency, currencies or currency unit in which such Securities and any related coupons are then specified as payable at Stated Maturity), or (ii) non-callable Government Securities that through the scheduled payment of principal and interest in respect thereof in accordance with their terms will provide, not later than one day before the due date of any payment, cash in Dollars in an amount, or (iii) a combination thereof, in such amounts as will be sufficient, in the opinion of a nationally recognized firm of independent public accountants expressed in a written certification thereof delivered to the Trustee, to pay and discharge and which shall be applied by the Trustee (or other qualifying trustee) to pay and discharge the principal of (and premium, if any) and interest, if any, on such outstanding Securities on the stated maturity date of such principal or installment of principal, or interest or premium, if any.

(b) In the case of an election under Section 12.02 hereof, the Company shall have delivered to the Trustee an Opinion of Counsel confirming that (i) the Company has received from, or there has been published by, the Internal Revenue Service a ruling or (ii) since the date hereof, there has been a change in the applicable federal income tax law, in either case to the effect that, and based thereon such Opinion of Counsel shall confirm that, the Holders of the outstanding Securities of such series will not recognize income, gain or loss for federal income tax purposes as a result of such Legal Defeasance and will be subject to federal income tax on the same amounts, in the same manner and at the same times as would have been the case if such Legal Defeasance had not occurred.

(c) In the case of an election under Section 12.03 hereof, the Company shall have delivered to the Trustee an Opinion of Counsel confirming that the Holders of the outstanding Securities of such series will not recognize income, gain or loss for federal income tax purposes as a result of such Covenant Defeasance and will be subject to federal income tax on the same amounts, in the same manner and at the same times as would have been the case if such Covenant Defeasance had not occurred.

(d) No Default or Event of Default (or event that, with the giving of notice or lapse of time or both would become an Event of Default) with respect to the Securities of such series shall have occurred and be continuing on the date of such deposit or, insofar as Section 5.01(d) or 5.01(e) hereof is concerned, at any time in the period ending on the 124th calendar day after the date of such deposit (it being understood that this condition shall not be deemed satisfied until the expiration of such period).

(e) Such Legal Defeasance or Covenant Defeasance shall not result in a breach or violation of, or constitute a default under any material agreement or instrument (other than this Indenture) to which the Company or any Guarantor is a party or by which the Company or such Guarantor is bound (other than a breach, violation or default resulting from the borrowing of funds to be applied to such deposit).

(f) The Company shall have delivered to the Trustee an Officers' Certificate stating that the deposit made by the Company pursuant to its election under Section 12.02 or 12.03 hereof was not made by the Company with the intent of preferring the Holders of the affected Securities over the other creditors of the Company with the intent of defeating, hindering, delaying or defrauding creditors of the Company, or others.

(g) Such Legal Defeasance or Covenant Defeasance shall be effected in compliance with any additional terms, conditions or limitations which may be imposed on the Company in connection therewith pursuant to Section 3.01.

(h) The Company shall have delivered to the Trustee an Officers' Certificate and an Opinion of Counsel, each stating that all conditions precedent provided for relating to either the Legal Defeasance under Section 12.02 hereof or the Covenant Defeasance under Section 12.03 hereof (as the case may be) have been complied with as contemplated by this Section 12.04.

SECTION 12.05. Deposited Money and Government Securities to be Held in Trust; Other Miscellaneous Provisions. Subject to Section 12.06 hereof, all money and non-callable Government Securities (including the proceeds thereof) deposited with the Trustee pursuant to Section 12.04 hereof in respect of the outstanding Securities of a particular series shall be held in trust and applied by the Trustee, in accordance with the provisions of such Securities, the Guarantees, if any, relating to such series of Securities and this Indenture, to the payment, either directly or through any Paying Agent (including the Company acting as Paying Agent) as the Trustee may determine, to the Holders of such Securities of all sums due and to become due thereon in respect of principal (and premium, if any) and interest, if any, but such money need not be segregated from other funds except to the extent required by law.

The Company shall pay and indemnify the Trustee against any tax, fee or other charge imposed on or assessed against the cash or non-callable Government Securities deposited pursuant to Section 12.04 hereof or the principal and interest received in respect thereof other than any such tax, fee or other charge that by law is for the account of the Holders of the outstanding Securities of such series.

Anything in this Article 12 to the contrary notwithstanding, the Trustee shall deliver or pay to the Company from time to time upon the Company's request any money or non-callable Government Securities held by it as provided in Section 12.04 hereof with respect to the Securities of any series which, in the opinion of a nationally recognized firm of independent public accountants expressed in a written certification thereof delivered to the Trustee (which may be the opinion delivered under Section 12.04(a) hereof), are in excess of the amount thereof which would then be required to be deposited to effect an equivalent Legal Defeasance or Covenant Defeasance.



SECTION 12.06. Repayment to the Company or Guarantor. Any money deposited with the Trustee or any Paying Agent, or then held by the Company or applicable Guarantor, in trust for the payment of the principal of (and premium, if any) and interest, if any, on any Security and remaining unclaimed for two years after such principal, or interest or premium, if any, has become due and payable and was deposited with the Paying Agent shall be paid to the Company or such Guarantor on its written request (or if then held by the Company or such Guarantor) will be discharged from such trust) subject to any applicable abandoned property law; and the Holder of such Security shall thereafter, as an unsecured general creditor, look only to the Company or such Guarantor for payment thereof, and all liability of the Trustee or such Paying Agent with respect to such trust money, and all liability of the Company or such Guarantor as trustee thereof, shall thereupon cease.

SECTION 12.07. Reinstatement. If the Trustee or Paying Agent is unable to apply any Dollars or non-callable Government Securities in accordance with Section 12.02 or 12.03 hereof, as the case may be, by reason of any order or judgment of any court or governmental authority enjoining, restraining or otherwise prohibiting such application, then the obligations of the Company and the applicable Guarantors under this Indenture, the Securities and any Guarantees shall be revived and reinstated as though no deposit had occurred pursuant to Section 12.02 or 12.03 hereof until such time as the Trustee or Paying Agent is permitted to apply all such money in accordance with Section 12.02 or 12.03 hereof, as the case may be; provided that, if the Company or any Guarantor makes any payment of principal of, or interest or premium, if any, on any Security following the reinstatement of its obligations, the Company or any Guarantor shall be subrogated to the rights of the Holders of such Security to receive such payment from the money held by the Trustee or Paying Agent.

## ARTICLE 13

### SATISFACTION AND DISCHARGE

SECTION 13.01. Satisfaction and Discharge of Indenture. This Indenture shall upon a Company Request cease to be of further effect with respect to any series of Securities (except, as to any surviving rights of registration of transfer, exchange or conversion of Securities of such series herein expressly provided for or in the form of Security for such series and any rights to receive payment of interest thereon), and the Trustee, on demand of and at the expense of the Company, shall execute proper instruments acknowledging satisfaction and discharge of this Indenture, when:

- (a) either
  - (i) all Securities of such series theretofore authenticated and delivered (other than (A) Securities which have been destroyed, lost or stolen and which have been replaced or paid as provided in Section 3.09, and (B) Securities for whose payment money has theretofore been (x) deposited in trust or segregated and held in trust by the Company and thereafter repaid to the Company or discharged from such trust, as provided in Section 4.03(c) or (y) paid to any State or the District of Columbia pursuant to its unclaimed property or similar laws) have been delivered to the Trustee for cancellation; or
  - (ii) all such Securities not theretofore delivered to the Trustee for cancellation
    - (A) have become due and payable (whether at Stated Maturity, upon redemption (if applicable), upon any required repurchase by the Company (if applicable) or otherwise), or
    - (B) will become due and payable at their stated maturity within one year, or
    - (C) are to be called for redemption within one year under arrangements satisfactory to the Trustee for the giving of notice of redemption by the Trustee in the name, and at the expense, of the Company, and the Company, in the case of (A), (B) or (C) above, has deposited or caused to be deposited with the Trustee, as trust funds in trust for the purpose, money in the amount in the currency or currency units in which the Securities of such series are payable, sufficient to pay and discharge the entire indebtedness on such Securities not theretofore delivered to the Trustee for cancellation, for principal (and premium, if any) and interest, if any, to the date of such deposit (in the case of Securities which have become due and payable), or to the Stated Maturity or redemption date, as the case may be;

(b) the Company or a Guarantor, if any, has paid or caused to be paid all other sums payable hereunder by the Company or the Guarantors, if any; and

(c) the Company has delivered to the Trustee an Officers' Certificate and an Opinion of Counsel each stating that all conditions precedent herein provided for relating to the satisfaction and discharge of this Indenture have been complied with.

Notwithstanding the satisfaction and discharge of this Indenture, the obligations of the Company to the Trustee under Section 6.07 and, if money shall have been deposited with the Trustee pursuant to subclause (ii) of clause (a) of this Section, the obligations of the Trustee under Section 13.02 and Section 4.03(e) shall survive.

SECTION 13.02. Application of Trust Money. Subject to the provisions of Section 4.03(e), all money deposited with the Trustee pursuant to Section 13.01 shall be held in trust and applied by it, in accordance with the provisions of the Securities, the Guarantees, if any, relating to such series of Securities and this Indenture, to the payment, either directly or through any Paying Agent (including the Company acting as its own Paying Agent), as the Trustee may determine, to the Persons entitled thereto, of the principal (and premium, if any) and interest, if any, for whose payment such money has been deposited with the Trustee.

## ARTICLE 14

### HOLDERS' LISTS AND REPORTS BY TRUSTEE, COMPANY AND GUARANTORS

SECTION 14.01. Company to Furnish Trustee Names and Addresses of Holders. The Company will furnish or cause to be furnished to the Trustee:

(a) semi-annually, not later than 15 calendar days after the Regular Record Date for each series of Securities, a list, in such form as the Trustee may reasonably require, of the names and addresses of the Holders of Securities as of such Regular Record Date (unless the Trustee has such information), or if there is no Regular Record Date for interest for such series of Securities, semi-annually, upon such dates as are set forth in the Board Resolution of the Company or indenture supplemental hereto authorizing such series, and

(b) at such other times as the Trustee may request in writing, within 30 calendar days after the receipt by the Company of any such request, a list of similar form and content as of a date not more than 15 calendar days prior to the time such list is furnished;

provided that so long as the Trustee is the Registrar, no such list shall be required to be furnished.

SECTION 14.02. Preservation of Information; Communications to Holders.

(a) The Trustee shall preserve, in as current a form as is reasonably practicable, the names and addresses of Holders contained in the most recent list furnished to the Trustee as provided in Section 14.01 and the names and addresses of Holders received by the Trustee in its capacity as the Registrar. The Trustee may destroy any list furnished to it as provided in Section 14.01 upon receipt of a new list so furnished.

(b) If three or more Holders (herein referred to as "applicants") apply in writing to the Trustee, and furnish to the Trustee reasonable proof that each such applicant has owned a Security for a period of at least six months preceding the date of such application (or since the first date of the issuance for such Security, if the holding period is less than six months), and such application states that the applicants desire to communicate with other Holders with respect to their rights under this Indenture or under the Securities and is accompanied by a copy of the form of proxy or other communication which such applicants propose to transmit, then the Trustee shall, within five Business Days after the receipt of such application, at its election, either

(i) afford such applicants access to the information preserved at the time by the Trustee in accordance with Section 14.02(a); or

(ii) inform such applicants as to the approximate number of Holders whose names and addresses appear in the information preserved at the time by the Trustee in accordance with Section 14.02(a), and as to the approximate cost of mailing to such Holders the form of proxy or other communication, if any, specified in such application.

If the Trustee shall elect not to afford such applicants access to such information, the Trustee shall, upon the written request of such applicants, mail to each Holder whose name and address appears in the information preserved at the time by the Trustee in accordance with Section 14.02(a) a copy of the form of proxy or other communication which is specified in such request, with reasonable promptness after a tender to the Trustee of the material to be mailed and of payment, or provision for the payment, of the reasonable expenses of mailing, unless within five Business Days after such tender the Trustee shall mail to such applicants and file with the Commission, together with a copy of the material to be mailed, a written statement to the effect that, in the opinion of the Trustee, such mailing would be contrary to the best interest of the Holders or would be in violation of applicable law. Such written statement shall specify the basis of such opinion. If the Commission, after opportunity for a hearing upon the objections specified in the written statement so filed, shall enter an order refusing to sustain any of such objections or if, after the entry of an order sustaining one or more of such objections, the Commission shall find, after notice and opportunity for hearing, that all objections so sustained have been met and shall enter an order so declaring, the Trustee shall mail copies of such material to all such Holders with reasonable promptness after the entry of such order and the renewal of such tender; otherwise the Trustee shall be relieved of any obligation or duty to such applicants respecting their application.

(c) Every Holder of Securities, by receiving and holding the same, agrees with the Company, any applicable Guarantor and the Trustee that none of the Company, such Guarantors and the Trustee nor any of their respective agents shall be held accountable by reason of the disclosure of any such information as to the names and addresses of the Holders in accordance with Section 14.02(b), regardless of the source from which such information was derived, and that the Trustee shall not be held accountable by reason of mailing any material pursuant to a request made under Section 14.02(b).

#### SECTION 14.03. Reports by the Trustee.

(a) The Trustee shall transmit to Holders such reports concerning the Trustee and its actions under this Indenture as may be required pursuant to the Trust Indenture Act at the times and in the manner provided pursuant thereto. If required by Section 313(a) of the Trust Indenture Act, the Trustee shall, within 60 calendar days after each May 15th following the date of this Indenture (commencing May 15, [●]) deliver to Holders a brief report, dated as of such May 15th, which complies with the provisions of such Section 313(a).

(b) A copy of each such report shall, at the time of such transmission to Holders, be filed by the Trustee with each securities exchange upon which Securities of any series are listed, with the Commission and with the Company. The Company will promptly notify the Trustee when any Securities are listed on any securities exchange and of any delisting thereof.

SECTION 14.04. Reports by the Company and Guarantors. The Company shall furnish to the Trustee, within 15 calendar days after it actually files such annual and quarterly reports, information, documents and other reports with the Commission, copies of its annual report and of the information, documents and other reports (or copies of such portions of any of the foregoing the Commission may by rules and regulations prescribe) that the Company is required to file with the Commission pursuant to Section 13 or 15(d) of the Exchange Act; provided that any such annual and quarterly reports, information, documents and other reports and information filed with the Commission may be provided by the Company to the Trustee electronically. The Company and any Guarantor shall comply with the other provisions of TIA Section 314(a). Delivery of such information, documents and reports to the Trustee is for informational purposes only and the Trustee's receipt of such shall not constitute constructive notice of any information contained therein or determinable from information contained therein, including the Company's compliance with any of its covenants hereunder (as to which the Trustee is entitled to rely exclusively on Officers' Certificates). It is expressly understood that materials transmitted electronically by the Company to the Trustee or filed pursuant to the Commission's EDGAR system (or any successor electronic filing system) shall be deemed filed with the Trustee and transmitted to Holders for purposes of this Section 14.04.

ARTICLE 15

MISCELLANEOUS PROVISIONS

SECTION 15.01. Incorporators, Stockholders, Members, Partners, Officers, Managers and Directors of Company or any Guarantor Exempt from Individual Liability. No recourse under or upon any obligation, covenant or agreement contained in this Indenture, or in any Security of any series or any Guarantees, or because of any indebtedness evidenced thereby, shall be had against any incorporator, as such or against any past, present or future stockholder, member, partner, officer, manager or director, as such, of the Company, any Guarantor or any successor, either directly or through the Company, any Guarantor or any successor, under any rule of law, statute or constitutional provision or by the enforcement of any assessment or by any legal or equitable proceeding or otherwise, all such liability being expressly waived and released by the acceptance of the Securities of such series by the Holders thereof and as part of the consideration for the issue of the Securities of such series.

SECTION 15.02. Provisions of Indenture for the Sole Benefit of Parties and Holders. Except as set forth in Section 15.10, nothing in this Indenture or in the Securities of any series, expressed or implied, shall give or be construed to give to any person, firm or corporation, other than the parties hereto and their successors and the Holders of the Securities of such series, any legal or equitable right, remedy or claim under this Indenture or under any covenant or provision herein contained, all such covenants and provisions being for the sole benefit of the parties hereto and their successors and of the Holders of the Securities.

SECTION 15.03. Successors and Assigns of Company or Guarantor Bound by Indenture. All the covenants, stipulations, promises and agreements in this Indenture contained by or in behalf of the Company or any Guarantor shall bind their successors and assigns, whether so expressed or not.

SECTION 15.04. Notices, Etc., to Trustee, the Company and Guarantors. Any request, demand, authorization, direction, notice, consent, waiver or act of Holders or other document provided or permitted by this Indenture to be made upon, given or furnished to, or filed with:

(1) the Trustee by any Holder, or by the Company or a Guarantor, if any, shall be sufficient for every purpose hereunder if made, given, furnished or filed in writing to or with the Trustee at [●], facsimile [●], or such other facsimile number as may be provided by the Trustee from time to time, and shall be deemed to have been made at the time of actual receipt of such written notice or facsimile transmission thereof; provided that any delivery made or facsimile sent on a day other than a Business Day shall be deemed to be received on the next following Business Day; or

(2) the Company or a Guarantor, if any, by the Trustee or by any Holder shall be sufficient for every purpose hereunder (unless otherwise herein expressly provided) if in writing to the Company or such Guarantor, as the case may be, addressed to it at the address specified in Schedule I hereto or at any other address or facsimile number previously furnished in writing to the Trustee by the Company or such Guarantor, as the case may be, and shall be deemed to have been made at the time of delivery or facsimile transmission; provided that any delivery made or facsimile sent on a day other than a Business Day shall be deemed to be received on the next following Business Day.

SECTION 15.05. Notices to Holders. Where this Indenture provides for notice to Holders, such notice shall be sufficiently given (unless otherwise herein expressly provided) if in writing and mailed, first-class postage prepaid, to each Holder entitled thereto, at its last address as it appears in the Security Register. In any case where notice to Holders is given by mail, neither the failure to mail such notice, nor any defect in any notice so mailed, to any particular Holder shall affect the sufficiency of such notice with respect to other Holders. Where this Indenture provides for notice in any manner, such notice may be waived in writing by the person entitled to receive such notice, either before or after the event, and such waiver shall be the equivalent of such notice. The Trustee may waive notice to it of any provision herein, and such waiver shall be deemed to be for its convenience and discretion. Waivers of notice by Holders shall be filed with the Trustee, but such filing shall not be a condition precedent to the validity of any action taken in reliance upon such waiver.

In case, by reason of the suspension of or irregularities in regular mail service, it shall be impracticable to mail notice to the Company, any Guarantor or any Holders when such notice is required to be given pursuant to any provision of this Indenture, then any manner of giving such notice as shall be satisfactory to the Trustee shall be deemed to be a sufficient giving of such notice.

SECTION 15.06. Officers' Certificates and Opinions of Counsel; Statements to Be Contained Therein. Upon any application or demand by the Company or any Guarantor to the Trustee to take any action under any of the provisions of this Indenture, the Company or such Guarantor, as the case may be, shall furnish to the Trustee an Officers' Certificate stating that all conditions precedent provided for in this Indenture relating to the proposed action have been complied with and an Opinion of Counsel stating that in the opinion of such counsel all such conditions precedent have been complied with, except that in the case of any such application or demand as to which the furnishing of such documents is specifically required by any provision of this Indenture relating to such particular application or demand, no additional certificate or opinion need be furnished.

Each certificate or opinion provided for in this Indenture and delivered to the Trustee with respect to compliance with a condition or covenant provided for in this Indenture shall include (a) a statement that the person making such certificate or opinion has read such covenant or condition, (b) a brief statement as to the nature and scope of the examination or investigation upon which the statements or opinions contained in such certificate or opinion are based, (c) a statement that, in the opinion of such person, he has made such examination or investigation as is necessary to enable him to express an informed opinion as to whether or not such covenant or condition has been complied with and (d) a statement as to whether or not, in the opinion of such person, such condition or covenant has been complied with.

Any certificate, statement or opinion of an officer of the Company or any Guarantor may be based, insofar as it relates to legal matters, upon a certificate or opinion of or representations by counsel, unless such officer knows that the certificate or opinion or representations with respect to the matters upon which his or her certificate, statement or opinion may be based as aforesaid are erroneous, or in the exercise of reasonable care should know that the same are erroneous. Any certificate, statement or Opinion of Counsel may be based, insofar as it relates to factual matters or information which is in the possession of the Company, upon the certificate, statement or opinion of or representations by an officer or officers of the Company or such Guarantor, as the case may be, unless such counsel knows that the certificate, statement or opinion or representations with respect to the matters upon which his or her certificate, statement or opinion may be based as aforesaid are erroneous, or in the exercise of reasonable care should know that the same are erroneous.

Any certificate, statement or opinion of an officer or counsel of the Company or any Guarantor may be based, insofar as it relates to accounting matters, upon a certificate or opinion of or representations by an accountant or firm of accountants in the employ of the Company or such Guarantor, as the case may be, unless such officer or counsel knows that the certificate or opinion or representations with respect to the accounting matters upon which his or her certificate, statement or opinion may be based as aforesaid are erroneous, or in the exercise of reasonable care should know that the same are erroneous.

Any certificate or opinion of any independent firm of public accountants filed with the Trustee shall contain a statement that such firm is independent within the meaning of the Securities Act and the rules and regulations promulgated thereunder.

SECTION 15.07. Payments Due on Saturdays, Sundays and Holidays. If the Stated Maturity of interest on or principal of the Securities of a particular series or the date fixed for redemption of any Security shall not be a Business Day, then payment of interest or principal with respect to such Securities need not be made on such date, but may be made on the next succeeding Business Day with the same force and effect as if made on the date of maturity or the date fixed for redemption, and no interest shall accrue for the period after such date.

SECTION 15.08. Conflict of Any Provision of Indenture with Trust Indenture Act. If and to the extent that any provision of this Indenture limits, qualifies or conflicts with another provision included in this Indenture by operation of Sections 310 to 317, inclusive, of the Trust Indenture Act (an “incorporated provision”), such incorporated provision shall control.

SECTION 15.09. Conflict of Any Provision of Securities with Indenture. If and to the extent that any provision of the Securities limits, qualifies or conflicts with a provision of this Indenture, such provision of this Indenture shall control.

SECTION 15.10. New York Law to Govern. This Indenture, the Securities of any series and the Guarantees, if any, shall each be deemed to be a contract under the laws of the State of New York, and for all purposes shall be construed in accordance with the laws of the State of New York, but without giving effect to applicable principles of conflicts of law to the extent that the application of the law of another jurisdiction would be required thereby.

SECTION 15.11. Waiver of Jury Trial. Each party hereto hereby waives, and each Holder by acceptance of its Securities shall be deemed to have waived, to the fullest extent permitted by applicable law, any right it may have to a trial by jury (but no other judicial remedies) in respect of any litigation directly or indirectly arising out of, under or in connection with this Indenture or the transactions contemplated hereby.

SECTION 15.12. Consent to Jurisdiction and Service. The Company and each Guarantor, if any, irrevocably (a) agree that any legal suit, action or proceeding against the Company or any Guarantor arising out of or based upon this Indenture, the Notes or any Guarantee or the transactions contemplated hereby may be instituted in any U.S. Federal or state court in the City and County of New York (collectively, the “Specified Courts”) and (b) waive, to the fullest extent they may effectively do so, any objection which they may now or hereafter have to the laying of venue of any such proceeding. The Company and each Guarantor hereby appoint C T Corporation System, 111 Eighth Avenue, New York, New York, 10011, as their authorized agent (the “Authorized Agent”) upon whom process may be served in any such action arising out of or based on this Indenture, the Securities or the transactions contemplated hereby which may be instituted in any Specified Court, expressly consent to the jurisdiction of any such Specified Court in respect of any such action, and waive any other requirements of or objections to personal jurisdiction with respect thereto. Such appointment shall be irrevocable by the Company and any Guarantors. The Company and each Guarantor represent and warrant that the Authorized Agent has agreed to act as such agent for service of process and agree to take any and all action, including the filing of any and all documents and instruments, that may be necessary to continue such appointment in full force and effect as aforesaid. Service of process upon the Authorized Agent in any manner permitted by applicable law and written notice of such service to the Company or to a Guarantor shall be deemed, in every respect, effective service of process upon the Company or such Guarantor.

SECTION 15.13. Third Party Beneficiaries. Holders of Securities of the Company are third party beneficiaries of this Indenture, and any of them (or their representative) shall have the right to enforce the provisions of this Indenture that benefit such Holders.

SECTION 15.14. Counterparts. This Indenture may be executed in any number of counterparts, each of which shall be an original; but such counterparts shall together constitute but one and the same instrument.

SECTION 15.15. Effect of Headings, Table of Contents. The Article and Section headings herein and the Table of Contents are for convenience only and shall not affect the construction hereof.

SECTION 15.16. No Adverse Interpretation of Other Agreements. This Indenture may not be used to interpret another indenture, loan or debt agreement of the Company, any Guarantor or any Subsidiary. Any such indenture, loan or debt agreement may not be used to interpret this Indenture.

SECTION 15.17. Severability. If any provision hereof shall be held to be invalid, illegal or unenforceable under applicable law, then the remaining provisions hereof shall be construed as though such invalid, illegal or unenforceable provision were not contained herein.

SECTION 15.18. Patriot Act Compliance. The parties hereto acknowledge that in accordance with Section 326 of the USA Patriot Act the Trustee, like all financial institutions, is required to obtain, verify, and record information that identifies each person or legal entity that establishes a relationship or opens account with the Trustee. The parties to this Indenture agree that they will provide the Trustee with such information as it may request in order for the Trustee to satisfy the requirements of the USA Patriot Act.

SECTION 15.19. Force Majeure. In no event shall the Trustee, Registrar or Paying Agent be liable for any failure or delay in the performance of its obligations hereunder because of circumstances beyond the Trustee's, Registrar's or Paying Agents' control, including, but not limited to, acts of God, flood, war (whether declared or undeclared), terrorism, fire, riot or embargo, which delay, restrict or prohibit the providing of the services contemplated by this Indenture.

SIGNATURES

IN WITNESS WHEREOF, the parties hereto have caused this Indenture to be duly executed, all as of [●].

IOVANCE BIOTHERAPEUTICS, INC.  
as the Company

By: \_\_\_\_\_

Name:

Title:

[●]

as a Guarantor

By: \_\_\_\_\_

Name:

Title:

**[Signature Page to Base Indenture]**

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[●],  
as the Trustee

By:

\_\_\_\_\_

Name:

Title:

**[Signature Page to Base Indenture]**

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**Schedule I**

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**Company**

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**Address and Facsimile Number**

Iovance Biotherapeutics, Inc.

999 Skyway Road, Suite 150  
San Carlos, California 94070

(650) 260-7120  
Attn: [●]

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**Guarantor**

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**Address and Facsimile Number**

[●]

[●]

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**TroyGould PC**  
**1801 Century Park East**  
**16<sup>th</sup> Floor**  
**Los Angeles, California 90067**

December 28, 2017

Iovance Biotherapeutics, Inc.  
999 Skyway Road, Suite 150  
San Carlos, California 94070

Ladies and Gentlemen:

You have requested our opinion with respect to certain matters in connection with the filing by Iovance Biotherapeutics, Inc., a Delaware corporation (the "Company"), with the Securities and Exchange Commission (the "Commission") of a Registration Statement on Form S-3 (the "Registration Statement"), including a related prospectus included in the Registration Statement (the "Prospectus"). The Registration Statement relates to the offer by the Company from time to time of up to \$250,000,000 of securities of the Company (collectively, "Securities"), which may include, among other Securities, (1) shares of common stock, par value 0.000041666 per share ("Common Stock"); (2) shares of preferred stock, par value \$0.001 per share ("Preferred Stock"); (3) warrants ("Warrants") to purchase Common Stock, Preferred Stock, or debt securities ("Debt Securities"); and (4) units consisting of shares of Common Stock, shares of Preferred Stock, Debt Securities and/or Warrants ("Units").

The Prospectus contemplates that it will be supplemented in the future by one or more prospectus supplements setting forth the specific terms of each offer and sale of Securities (each, a "Prospectus Supplement").

In connection with this opinion letter, we have examined and relied upon the Registration Statement and the Prospectus, the Company's certificate of incorporation, as amended (the "Certificate of Incorporation"), the Company's bylaws, as amended (the "Bylaws"), resolutions of the board of directors of the Company relating to the Registration Statement, the Securities and related matters, and originals or copies certified to our satisfaction of such other records, documents, certificates, memoranda and other instruments as in our judgment are necessary or appropriate to enable us to render the opinion expressed below. As to certain factual matters, we have relied upon a certificate of an officer of the Company and have not independently sought to verify such matters.

Our opinions herein are expressed solely with respect to the federal laws of the United States, the internal laws of the State of California, and the Delaware General Corporation Law (including applicable rules and regulations promulgated under the Delaware General Corporation Law and applicable reported judicial decisions interpreting the Delaware General Corporation Law). We neither express nor imply any opinion with respect to any other laws or the laws of any other jurisdiction. The Securities may be issued from time to time on a delayed or continuous basis, and the opinions expressed below concern only laws that are in effect on the date of this opinion letter. We undertake no, and hereby disclaim any, obligation to advise you of any change in any matter set forth herein, whether based on a change in laws, a change in any fact relating to the Company, or any other circumstance. This opinion letter is limited to the matters expressly stated herein, and no opinions are to be inferred or may be implied beyond the opinions expressly set forth herein. Without limiting the generality of the foregoing, we neither express nor imply any opinion regarding the contents of the Registration Statement, the Prospectus, or any Prospectus Supplement other than as expressly stated herein with respect to the issuance of the Securities.

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Based upon and subject to the foregoing and the additional qualifications and limitations set forth below, we are of the opinion that:

1. When the issuance and the terms of sale of shares of Common Stock have been duly authorized and established by the board of directors of the Company in conformity with the Certificate of Incorporation and Bylaws, and such shares have been issued and delivered against payment of their full purchase price and in accordance with the applicable purchase, underwriting, or similar agreement and the terms of the Registration Statement, the Prospectus, and the applicable Prospectus Supplement (and, if issued upon the exercise of Warrants or the conversion of Preferred Stock or Debt Securities, when such shares of Common Stock have been duly issued and delivered as contemplated by the terms of the Warrants, Preferred Stock or Debt Securities, as applicable), such shares of Common Stock will be validly issued, fully paid, and nonassessable.

2. When the issuance and the terms of sale of shares of Preferred Stock have been duly authorized and established by the board of directors of the Company in conformity with the Certificate of Incorporation, including the designations of rights, preferences and privileges of such Preferred Stock, and the Bylaws and such shares have been issued and delivered against payment of their full purchase price and in accordance with the applicable purchase, underwriting, or similar agreement and the terms of the Registration Statement, the Prospectus, and the applicable Prospectus Supplement (and, if issued upon the exercise of Warrants or conversion of Debt Securities, when such shares of Preferred Stock have been duly issued and delivered as contemplated by the terms of the Warrants or Debt Securities, as applicable), such shares of Preferred Stock will be validly issued, fully paid, and nonassessable.

3. When the issuance and the terms of sale of Warrants have been duly authorized and established by the board of directors of the Company and such Warrants have been issued and delivered against payment of their full purchase price and in accordance with the applicable warrant, underwriting, or similar agreement and the terms of the Registration Statement, the Prospectus, and the applicable Prospectus Supplement, such Warrants will constitute valid and binding obligations of the Company, enforceable against the Company in accordance with their terms.

4. When the issuance and the terms of sale of Units have been duly authorized and established by the board of directors of the Company and such Units have been issued and delivered against payment of their full purchase price and in accordance with the applicable purchase, underwriting, or similar agreement and the terms of the Registration Statement, the Prospectus, and the applicable Prospectus Supplement, such Units will constitute valid and binding obligations of the Company, enforceable against the Company in accordance with their terms.

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With your permission, we have made (and are relying upon) the following assumptions, without any independent investigation or inquiry by us, and our opinions expressed above are subject to, and limited and qualified by the effect of, the following assumptions: (1) all representations, warranties, and other statements as to factual matters that are contained in the documents that we reviewed in connection with this opinion letter are accurate and complete, and all corporate records furnished to us by the Company are accurate and complete; (2) the Registration Statement will be declared effective under the Securities Act of 1933, as amended (the "Securities Act"), prior to the Company's offer and sale of any Securities, and such effectiveness will not be suspended or terminated as of the date of the offer and sale of any Securities; (3) the Company's board of directors will adopt resolutions duly authorizing each offer and sale of Securities and establishing the terms of the sale of such Securities, and such resolutions will not be rescinded and will not be modified in a manner that adversely affects the opinions expressed above; (4) in compliance with the Securities Act and the rules and regulations thereunder, the Company will prepare and file with the Commission a Prospectus Supplement describing the terms of each offering of Securities; (5) a definitive indenture or purchase, underwriting, warrant, or similar agreement will be duly executed and delivered by the Company and the other parties thereto with respect to each offer and sale of Securities; (6) the number of shares of the Company's Common Stock or Preferred Stock, as applicable, to be issued pursuant to the Registration Statement, the Prospectus, and any Prospectus Supplement, together with the number of then-outstanding shares of Common Stock or Preferred Stock, will not exceed the number of shares of Common Stock or Preferred Stock authorized in the Certificate of Incorporation; (7) the purchase price of all Securities will consist solely of cash; (8) in connection with each issuance of Common Stock, Preferred Stock, Warrants, or Units, the Company will duly execute and deliver stock certificates, warrant certificates, or unit certificates, as applicable, in the form filed by the Company as exhibits to the Registration Statement or, with respect to Common Stock or Preferred Stock issued on an uncertificated basis, the Company will comply with applicable law regarding the documentation of uncertificated securities; (9) the Company's offer and sale of Securities, and compliance with any definitive indenture or purchase, underwriting, warrant, or similar agreement pertaining to such offer and sale, will not violate any applicable law, rule, regulation, or public policy or any judgment, order or decree of any court having jurisdiction over the Company; (10) the Company's offer and sale of Securities, and compliance with any definitive indenture or purchase, underwriting, warrant, or similar agreement pertaining to such offer and sale, will not constitute a default under, or a breach of, any agreement to which the Company is a party or is otherwise subject, and neither the Certificate of Incorporation nor the Bylaws will be amended after the date of this opinion letter in a manner that would cause such offer or sale of Securities to constitute a violation of the Certificate of Incorporation or the Bylaws; (11) each Warrant and purchase, underwriting and similar agreement pertaining to the offer and sale of Securities (other than an indenture pertaining to the issuance of Debt Securities) will be governed by the internal laws of the State of California; and (12) with respect to documents that we reviewed in connection with this opinion, all documents submitted to us as originals are authentic; all documents submitted to us as certified, facsimile, or photostatic copies conform to the originals of such documents, and such original documents are authentic; the signatures on all documents are genuine; and all natural persons who have executed any of the documents have the legal capacity to do so.

Our opinions are subject to: (i) the effect of bankruptcy, insolvency, reorganization, preference, fraudulent transfer, moratorium or other similar laws relating to or affecting the rights and remedies of creditors; (ii) the effect of general principles of equity, whether considered in a proceeding in equity or at law (including the possible unavailability of specific performance or injunctive relief), concepts of materiality, reasonableness, good faith and fair dealing, and the discretion of the court before which a proceeding is brought; (iii) the invalidity under certain circumstances under law or court decisions of provisions providing for the indemnification of or contribution to a party with respect to a liability where such indemnification or contribution is contrary to public policy; and (iv) we express no opinion as to (a) any provision for liquidated damages, default interest, late charges, monetary penalties, make-whole premiums or other economic remedies to the extent such provisions are deemed to constitute a penalty, (b) consents to, or restrictions upon, governing law, jurisdiction, venue, arbitration, remedies or judicial relief, (c) waivers of rights or defenses, (d) any provision requiring the payment of attorneys' fees, where such payment is contrary to law or public policy, (e) the creation, validity, attachment, perfection, or priority of any lien or security interest, (f) advance waivers of claims, defenses, rights granted by law, or notice, opportunity for hearing, evidentiary requirements, statutes of limitation, trial by jury or at law, or other procedural rights, (g) waivers of broadly or vaguely stated rights, (h) provisions for exclusivity, election or cumulation of rights or remedies, (i) provisions authorizing or validating conclusive or discretionary determinations, (j) grants of setoff rights, (k) proxies, powers and trusts, (l) provisions prohibiting, restricting, or requiring consent to assignment or transfer of any right or property, (m) any provision to the extent it requires that a claim with respect to a security denominated in other than U.S. dollars (or a judgment in respect of such a claim) be converted into U.S. dollars at a rate of exchange at a particular date, to the extent applicable law otherwise provides, and (n) the severability, if invalid, of provisions to the foregoing effect.

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This opinion letter is provided in connection with the transactions contemplated by the Registration Statement and may not be used or relied upon for any other purpose without our express written consent. The only opinions rendered by us consists of those set forth above, and no opinion may be implied or inferred beyond that expressly stated.

We hereby consent to the filing of this opinion letter as an exhibit to the Registration Statement and further consent to the use of our name under the heading "Legal Matters" in the Prospectus. In giving such consent, we do not thereby admit that we are within the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission thereunder.

Very truly yours,

/s/ TROYGOULD PC

TROYGOULD PC

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# Morgan Lewis

December 28, 2017

Board of Directors  
Iovance Biotherapeutics, Inc.  
999 Skyway Road, Suite 150  
San Carlos, California 94070

Re: Iovance Biotherapeutics, Inc. – Registration Statement on Form S-3

Ladies and Gentlemen:

We have acted as special counsel to Iovance Biotherapeutics, Inc., a Delaware corporation (the “**Company**”), in connection with the filing of a registration statement on Form S-3 (the “**Registration Statement**”), filed with the Securities and Exchange Commission on the date hereof, under the Securities Act of 1933, as amended (the “**Securities Act**”). The Registration Statement includes a prospectus (the “**Prospectus**”) that provides that it may be supplemented in the future by one or more supplements to the Prospectus (each, a “**Prospectus Supplement**”). The Prospectus, as it may be supplemented by one or more Prospectus Supplements, relates to the proposed offering and sale from time to time, pursuant to Rule 415 under the Securities Act, of up to \$250,000,000 in the aggregate of, among other things, debt securities of the Company (the “**Debt Securities**”).

In connection with this opinion letter, we have examined the Registration Statement and originals, or copies certified or otherwise identified to our satisfaction, of (i) the Form of Indenture (the “**Base Indenture**”) by and between the Company and the trustee to be named therein (the “**Trustee**”) filed as Exhibit 4.1 to the Registration Statement, (ii) certain resolutions of the Company’s Board of Directors relating to the Registration Statement, and (iii) such other documents, records and other instruments as we have deemed appropriate for purposes of the opinion set forth herein.

We have assumed the genuineness of all signatures, the legal capacity of all natural persons, the authenticity of the documents submitted to us as originals, the conformity with the originals of all documents submitted to us as certified, facsimile or photostatic copies and the authenticity of the originals of all documents submitted to us as copies. With respect to matters of fact relevant to our opinion as set forth below, we have relied upon certificates of officers of the Company, representations made by the Company in documents examined by us and representations of officers of the Company. We have also obtained and relied upon such certificates and assurances from public officials as we have deemed necessary for the purposes of our opinion set forth below.

For the purpose of the opinion set forth below, we have also assumed, without independent investigation or verification, that:

A. the issuance, sale, number or amount, as the case may be, and terms of Debt Securities to be offered from time to time will be duly authorized and established, in accordance with the Certificate of Incorporation of the Company, the Bylaws of the Company and applicable Delaware law (each, a “**Corporate Action**”), and will not conflict with or constitute a breach of the terms of any agreement or instrument to which the Company is subject;

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B. each series of Debt Securities will be issued under the Base Indenture and any necessary amendment or supplement thereto (collectively, the “**Indenture**”) between the Company and the Trustee, and the execution, delivery and performance of the Indenture will be duly authorized by Corporate Action, and will not conflict with or constitute a breach of the terms of any agreement or instrument to which the Company is subject;

C. to the extent that the obligations of the Company under the Indenture may depend upon such matters, the Trustee will be duly organized, validly existing and in good standing under the laws of its jurisdiction of organization; that the Trustee will be duly qualified to engage in the activities contemplated by the Indenture; that the Indenture will be duly authorized, executed and delivered by the Trustee and will constitute the legal, valid and binding obligation of such Trustee, enforceable against the Trustee in accordance with its terms; that the Trustee will be in compliance, generally and with respect to acting as a trustee under the Indenture, with all applicable laws and regulations, and that the Trustee will have the requisite organizational and legal power and authority to perform its obligations under such Indenture;

D. the Registration Statement and any amendments thereto (including post-effective amendments) will have become effective and such effectiveness shall not have been terminated or rescinded and will comply with all applicable federal and state laws at the time the Debt Securities are offered and issued as contemplated by the Registration Statement;

E. a Prospectus Supplement will have been prepared, delivered (including through compliance with Rule 172 of the General Rules and Regulations promulgated under the Act) and filed with the Commission describing the Debt Securities offered thereby and will comply with all applicable laws at the time the Debt Securities are offered and issued as contemplated by the Registration Statement;

F. all Debt Securities will be issued and sold in compliance with applicable federal and state securities laws; and

G. a definitive purchase, underwriting or similar agreement (each, a “**Definitive Agreement**”) with respect to any Debt Securities offered or issued will have been duly authorized and validly executed and delivered by the Company and the other parties thereto.

Subject to the foregoing and the other matters set forth herein, it is our opinion that, as of the date hereof:

When the Indenture has been qualified under the Trust Indenture Act of 1939, as amended, the particular series of Debt Securities has been duly established in accordance with the terms of the applicable Indenture, the specific terms of a particular issuance of Debt Securities have been duly authorized by Corporate Action and are in accordance with the terms of the Indenture, the Indenture is duly executed and delivered by the Company, and such Debt Securities have been duly executed, authenticated, completed, issued and delivered, against payment for such Debt Securities, in accordance with the terms and provisions of the applicable Definitive Agreements, the terms of the Corporate Action and as contemplated by the Registration Statement and the applicable Prospectus Supplement, and, if applicable, upon the conversion, exchange or exercise of any other securities issued by the Company in accordance with their respective terms, the terms of the Corporate Action and as contemplated by the Registration Statement and the applicable Prospectus Supplement, such Debt Securities will be validly issued and will constitute valid and binding obligations of the Company, and the Indenture will constitute a valid and binding obligation of the Company, except, with respect to each of the Debt Securities and the Indenture, as enforcement may be limited by applicable bankruptcy, insolvency, reorganization, arrangement, moratorium or other similar laws affecting creditors’ rights, and subject to general equity principles and to limitations on availability of equitable relief, including specific performance.

The foregoing opinion is limited to the laws of the State of New York, and we express no opinion with respect to the laws of any other state or jurisdiction. Although the Debt Securities may be issued from time to time on a delayed or continuous basis, the opinion expressed herein is limited to the laws, including rules and regulations, as in effect on the date hereof.

The opinion letter is limited to the matters stated herein and no opinions may be implied or inferred beyond that matters expressly stated herein. The opinion expressed herein is as of the date hereof and we assume no obligation to update or supplement such opinion to reflect any facts or circumstances that may hereafter come to our attention or any changes in the law that may hereafter occur.

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We consent to your filing this opinion as an exhibit to the Registration Statement and to the reference to our firm under the caption “Legal Matters” in the Prospectus. In giving such consent, we do not hereby admit that we are acting within the category of persons whose consent is required under Section 7 of the Securities Act or the rules or regulations of the Securities and Exchange Commission thereunder.

Very truly yours,

/s/ Morgan, Lewis & Bockius LLP

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**Statement of Computation of Ratio of Earnings to Fixed Charges and Ratio of Combined  
Fixed Charges and Preferred Stock Dividends**  
(in thousands, except ratios)

	Year Ended December 31,					Nine Months Ended September 30,
	2012	2013	2014	2015	2016	2017
<b>EARNINGS</b>						
Net (loss)	\$ (3,308)	\$ (25,382)	\$ (12,035)	\$ (27,660)	\$ (52,849)	\$ (66,210)
Plus:						
Fixed Charges (see below)	\$ 2,380	\$ 504	\$ 21	\$ 85	\$ 190	\$ 242
Total (loss) to cover fixed charges	\$ (928)	\$ (24,878)	\$ (12,014)	\$ (27,575)	\$ (52,650)	\$ (65,968)
<b>FIXED CHARGES</b>						
Interest expense	\$ 1,876	\$ 446	\$ -	\$ -	\$ -	\$ -
Amortization of debt discount	\$ 498	\$ -	\$ -	\$ -	\$ -	\$ -
Rental expenses representative of an interest factor (1)	\$ 6	\$ 58	\$ 21	\$ 85	\$ 190	\$ 242
Total fixed charges	\$ 2,380	\$ 504	\$ 21	\$ 85	\$ 190	\$ 242
Preferred dividends	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>DEFICIENCY OF EARNINGS TO COVERED CHARGES</b>						
	<u>\$ (3,308)</u>	<u>\$ (25,382)</u>	<u>\$ (12,035)</u>	<u>\$ (27,660)</u>	<u>\$ (52,840)</u>	<u>\$ (66,210)</u>
<b>RATIO OF EARNINGS TO FIXED CHARGES</b>						
						-
<b>RATIO OF EARNINGS TO COMBINED FIXED CHARGES AND PREFERRED DIVIDENDS</b>						
						-

(1) Represents the estimated interest factor associated with certain facility lease expenses at an assumed rate of 33% of total rent expense, which management believes is a reasonable estimation of the interest factor.

**INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM'S CONSENT**

We consent to the incorporation by reference in this Registration Statement of Iovance Biotherapeutics, Inc. (formerly known as Lion Biotechnologies, Inc.) on Form S-3 of our report dated March 8, 2017, with respect to our audit of the financial statements of Lion Biotechnologies, Inc. as of December 31, 2016 and for the year then ended and our report dated March 8, 2017 with respect to our audit of the effectiveness of internal control over financial reporting of Lion Biotechnologies, Inc. as of December 31, 2016 appearing in the Annual Report on Form 10-K of Lion Biotechnologies, Inc. for the year ended December 31, 2016. We also consent to the reference to our firm under the heading "Experts" in such Prospectus.

/s/ Marcum LLP

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Marcum LLP  
New York, NY  
December 28, 2017

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**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We consent to the incorporation by reference in this Registration Statement on Form S-3 of Iovance Biotherapeutics, Inc. (formerly known as Lion Biotechnologies, Inc.) of our report dated March 11, 2016, with respect to the financial statements of Lion Biotechnologies, Inc. as of December 31, 2015 and 2014, and for the years then ended, which appear in Lion Biotechnologies, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2016 filed with the Securities and Exchange Commission on March 9, 2017. We also consent to the reference to our firm under the heading "Experts" in the Registration Statement.

/s/ Weinberg & Company, P.A.

Los Angeles, California

December 28, 2017

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