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

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**FORM S-1  
REGISTRATION STATEMENT  
UNDER THE SECURITIES ACT OF 1933**

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**FIBROCELL SCIENCE, INC.**

(Exact name of registrant as specified in its charter)

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**Delaware**  
(State or other jurisdiction of  
incorporation or organization)

**2834**  
(Primary Standard Industrial  
Classification Code Number)

**87-0458888**  
(I.R.S. Employer  
Identification Number)

**405 Eagleview Boulevard  
Exton, PA 19341  
(484) 713-6000**  
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

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**John M. Maslowski  
President and Chief Executive Officer  
Fibrocell Science, Inc.  
405 Eagleview Boulevard  
Exton, PA 19341  
(484) 713-6000**  
(Name, address, including zip code, and telephone number, including area code, of agent for service)

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*Copies to:*

**Steven J. Abrams  
Hogan Lovells US LLP  
1735 Market Street, 23rd Floor  
Philadelphia, PA 19103  
Tel: (267) 675-4600**

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

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

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

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

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or 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.

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Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

(Do not check if a smaller reporting company)

Emerging growth company

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

Title of Each Class of Securities To Be Registered	Amount to be Registered Offering Price(1)(2)	Proposed Maximum Aggregate Offering Price per Share	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Common Stock, \$0.001 par value per share, underlying common stock purchase warrants	1,528,668	\$2.86 (3)	\$ 4,371,990.48	\$ 545.00
	958,152	\$2.70 (4)	\$ 2,587,010.40	\$ 323.00
Common Stock, \$0.001 par value per share, underlying common stock purchase warrants	142,676	\$3.679 (5)	\$ 524,905.00	\$ 66.00
	103,186	\$3.464 (6)	\$ 357,436.30	\$ 45.00
<b>Total</b>	<b>2,732,682</b>		<b>\$ 7,841,342.18</b>	<b>\$ 979.00</b>

- (1) Pursuant to Rule 416 under the Securities Act of 1933, as amended, there is also being registered hereby such indeterminate number of additional shares of common stock, par value \$0.001 per share, of the registrant as may be issued or issuable because of stock splits, stock dividends, stock distributions, and similar transactions.
- (2) Represents 2,732,682 shares of the registrant's common stock issuable upon exercise of certain outstanding common stock purchase warrants, of which 1,528,668 are exercisable at an exercise price of \$2.86 per share, 958,152 are exercisable at an exercise price of \$2.70 per share, 142,676 are exercisable at an exercise price of \$3.679 per share and 103,186 are exercisable at an exercise price of \$3.464 per share, to be offered and sold, in each case, by the selling stockholders identified in this registration statement.
- (3) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(g) under the Securities Act based upon the higher of (i) \$2.86, which is the price at which the warrants may be exercised, and (ii) \$2.23, which is the average of the high and low prices for a share of the registrant's common stock as reported on the Nasdaq Capital Market on July 24, 2018 which date is a date within five business days of the filing of this registration statement.
- (4) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(g) under the Securities Act based upon the higher of (i) \$2.70, which is the price at which the warrants may be exercised, and (ii) \$2.23, which is the average of the high and low prices for a share of the registrant's common stock as reported on the Nasdaq Capital Market on July 24, 2018 which date is a date within five business days of the filing of this registration statement.
- (5) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(g) under the Securities Act based upon the higher of (i) \$3.679, which is the price at which the warrants may be exercised, and (ii) \$2.23, which is the average of the high and low prices for a share of the registrant's common stock as reported on the Nasdaq Capital Market on July 24, 2018 which date is a date within five business days of the filing of this registration statement.
- (6) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(g) under the Securities Act based upon the higher of (i) \$3.464, which is the price at which the warrants may be exercised, and (ii) \$2.23, which is the average of the high and low prices for a share of the registrant's common stock as reported on the Nasdaq Capital Market on July 24, 2018 which date is a date within five business days of the filing of this registration statement.

**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 or until the Registration Statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.**

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

**SUBJECT TO COMPLETION, DATED JULY 27, 2018**

**PROSPECTUS**



## **2,732,682 Shares of Common Stock Issuable upon Exercise of Outstanding Warrants**

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This prospectus relates to the resale, from time to time, by the selling stockholders identified in this prospectus under the caption "Selling Stockholders," of up to 2,732,682 shares of our common stock, par value \$0.001 per share, issuable upon exercise of certain outstanding common stock purchase warrants issued and sold by us. We are not selling any shares of common stock under this prospectus and will not receive any proceeds from the sale of shares of common stock by the selling stockholders. We will receive proceeds from any cash exercise of the warrants, which, if exercised in cash with respect to all of the 2,732,682 shares of common stock offered hereby, would result in gross proceeds to us of approximately \$7.8 million; however, we cannot predict when or if the warrants will be exercised and it is possible that the warrants may expire and never be exercised, in which case we would not receive any cash proceeds. The selling stockholders will bear all commissions and discounts, if any, attributable to the sale of the shares. We will pay for the expenses of this offering which are estimated to be \$125,000.

The selling stockholders may sell the shares of our common stock offered by this prospectus from time to time on terms to be determined at the time of sale through ordinary brokerage transactions or through any other means described in this prospectus under the caption "Plan of Distribution." The shares of common stock may be sold at fixed prices, at market prices prevailing at the time of sale, at prices related to prevailing market price or at negotiated prices.

Our common stock is listed on the Nasdaq Capital Market under the symbol "FCSC." On July 26, 2018, the closing price of our common stock was \$2.25 per share.

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**Investing in our common stock involves a high degree of risk. See "Risk Factors" beginning on page 7 of this prospectus and under similar headings in the documents incorporated by reference into this prospectus.**

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

The date of this prospectus is , 2018.

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## ABOUT THIS PROSPECTUS

This prospectus relates to the resale by the selling stockholders identified in this prospectus under the caption “Selling Stockholders,” from time to time, of up to an aggregate of 2,732,682 shares of our common stock, par value \$0.001 per share, issuable upon exercise of certain outstanding common stock purchase warrants. As described below under “Prospectus Summary— Description of Private Placements,” the shares of our common stock registered by this prospectus are issuable upon exercise of (i) common stock purchase warrants to purchase up to 1,528,668 shares of our common stock for an exercise price of \$2.86 per share issued on May 31, 2018, (ii) common stock purchase warrants to purchase up to 958,152 shares of our common stock for an exercise price of \$2.70 per share issued on July 5, 2018, (iii) common stock purchase warrants to purchase up to 142,676 shares of our common stock for an exercise price of \$3.679 per share issued on May 31, 2018, and (iv) common stock purchase warrants to purchase up to 103,186 shares of our common stock for an exercise price of \$3.464 per share issued on July 5, 2018, all of which are exercisable by the selling stockholders. We are not selling any shares of our common stock under this prospectus, and we will not receive any proceeds from the sale of shares of common stock offered hereby by the selling stockholders.

This prospectus is part of a registration statement on Form S-1 that we have filed with the Securities and Exchange Commission, or SEC. It omits some of the information contained in the registration statement, and reference is made to the full registration statement for further information with regard to us and the securities being offered by the selling stockholders. Any statement contained in the prospectus concerning the provisions of any document filed as an exhibit to the registration statement or otherwise filed with the SEC is not necessarily complete, and in each instance, reference is made to the copy of the document filed. You should review the complete document to evaluate these statements.

You should read this prospectus, any documents that we incorporate by reference in this prospectus and the information below under the caption “Where You Can Find More Information” and “Incorporation of Documents By Reference” before making an investment decision. You should rely only on the information contained or incorporated by reference in this prospectus. We have not authorized any other person to provide you with different information. If anyone provides you with additional, different or inconsistent information, you should not rely on it. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

You should not assume that the information in this prospectus or any documents we incorporate by reference herein is accurate as of any date other than the date on the front of each document. Our business, financial condition, results of operations and prospects may have changed since those dates.

This prospectus and the documents that are incorporated by reference herein contain certain market data and industry statistics and forecasts that are based on studies and clinical trials sponsored by the Company or third parties, independent industry publications and other publicly available information. Many of these statements involve risks and uncertainties and are subject to change based on various factors, including those discussed under the caption “Risk Factors” in this prospectus and under similar captions in the documents that are incorporated by reference herein. Accordingly, investors should not place undue reliance on this information.

References in this prospectus to the terms “the Company,” “Fibrocell,” “we,” “our” and “us” or other similar terms mean Fibrocell Science, Inc. and our wholly owned subsidiaries, unless we state otherwise or the context indicates otherwise.

Unless otherwise indicated, all share amounts and the exercise price of any of our securities reflect, as applicable, the occurrence of a 1-for-25 reverse split of our common stock that occurred on April 30, 2013, the occurrence of a 1-for-3 reverse split of our common stock that occurred on March 10, 2017 and the occurrence of a 1-for-5 reverse split of our common stock that occurred on May 24, 2018.

## PROSPECTUS SUMMARY

*This summary highlights information contained in other parts of this prospectus and in the documents we incorporate by reference. Because it is only a summary, it does not contain all of the information that you should consider before investing in our securities and it is qualified in its entirety by, and should be read in conjunction with, the more detailed information appearing elsewhere in this prospectus, any applicable free writing prospectus and the documents incorporated by reference herein and therein. You should read all such documents carefully, especially the risk factors and our consolidated financial statements and the related notes included or incorporated by reference herein or therein, before deciding to buy shares of our common stock.*

### Company Overview

We are an autologous cell and gene therapy company focused on translating personalized biologics into medical breakthroughs for diseases affecting the skin and connective tissue. Our distinctive approach to personalized biologics is based on our proprietary autologous fibroblast technology. Fibroblasts are the most common cell in skin and connective tissue and are responsible for synthesizing extracellular matrix proteins, including collagen and other growth factors, that provide structure and support. Because fibroblasts naturally reside in the localized environment of the skin and connective tissue, they represent an ideal delivery vehicle for proteins targeted to these areas. We target the underlying cause of disease by using fibroblast cells from a patient's skin and genetically modifying them to create localized therapies that are compatible with the unique biology of the patient (i.e., which are autologous).

We are focused on discovering and developing localized therapies for diseases affecting the skin and connective tissue, where there are high unmet needs, to improve the lives of patients and their families. In that regard, we commit significant resources to our research and development programs. Currently, all of our research and development operations and focus are on gaining regulatory approvals to commercialize our product candidates in the United States; however, we may seek to expand into international markets in the future.

For more information about our company, please refer to other documents that we have filed with the SEC and that are incorporated by reference into this prospectus, as listed under the heading "Incorporation of Certain Information by Reference."

### Corporate Information

Our corporate headquarters is located at 405 Eagleview Boulevard, Exton, Pennsylvania 19341. Our phone number is (484) 713-6000. Our corporate website is [www.fibrocell.com](http://www.fibrocell.com). We make available free of charge on our website our annual, quarterly and current reports, including amendments to such reports, as soon as reasonably practicable after we electronically file such material with, or furnish such material to, the SEC. Information contained on our website is not incorporated by reference into this prospectus, and you should not consider information contained on our website as part of this prospectus.

### Risks Associated with Our Business

Our business is subject to a number of risks of which you should be aware before making an investment decision. These risks are discussed more fully in the "Risk Factors" section of this prospectus immediately following this prospectus summary and in Part I, Item 1A "Risk Factors" of our Annual Report on Form 10-K filed with the SEC on March 19, 2018 and in Part II, Item 1A "Risk Factors" of our Quarterly Report on Form 10-Q filed with the SEC on May 10, 2018, which are incorporated by reference in this prospectus. These risks include the following:

- There can be no assurance that our review of strategic alternatives will result in any additional stockholder value, and speculation and uncertainty regarding the outcome of our review of strategic alternatives may adversely impact our business, financial condition and results of operations.
- We have incurred significant losses since our inception, which we anticipate will continue for the foreseeable future. As of March 31, 2018, we had an accumulated deficit of \$181.7 million.
- We have never generated significant revenue from product sales and may never be profitable.

- Our business is highly dependent on the success of FCX-007, our lead product candidate.
- We may encounter difficulties enrolling or retaining subjects in our clinical trials.
- Clinical product development is costly and time consuming and involves uncertain outcomes, and results of earlier studies and trials may not be predictive of future trial results.
- We may not be able to submit investigational new drug applications, commence clinical trials or report data on the timelines we expect, and even if we are able to, the U.S. Food and Drug Administration may not permit us to proceed.
- If our product candidates fail to demonstrate quality, safety and efficacy to the satisfaction of regulatory authorities, we may incur additional costs or experience delays in completing, or ultimately be unable to complete, the development and commercialization of our product candidates.
- We will need to obtain additional funding for commercialization. Failure to obtain additional funding when needed may force us to delay, limit or terminate our product development efforts or other operations.
- There is substantial doubt relating to our ability to continue as a going concern as determined by management and as reflected in the report of our independent registered public accounting firm. We will need to raise substantial additional capital to fund our operations.
- If we are unable to remain in compliance with the continued listing requirements of the Nasdaq Capital Market, our common stock may be delisted from the Nasdaq Capital Market.
- We have relied and expect to rely on third parties to conduct aspects of our research and development and clinical trials. If they terminate our arrangements, fail to meet deadlines or perform in an unsatisfactory manner, our business could be harmed.
- The potential commercial success of any current or future product candidate will depend upon the degree of market acceptance by physicians, patients, third-party payors and others in the medical community.

#### **Description of Private Placements**

##### *May 2018 Private Placement*

On May 29, 2018, we entered into securities purchase agreements with certain institutional and accredited investors named therein, or the May 2018 Private Placement Purchasers, pursuant to which we agreed, among other things, to issue and sell common stock purchase warrants exercisable for up to 1,528,668 shares of our common stock at an exercise price of \$2.86 per share (subject to adjustment as set forth therein) to the May 2018 Private Placement Purchasers. We refer to the sale of these warrants as the May 2018 Private Placement.

Each warrant sold in the May 2018 Private Placement was immediately exercisable on the date of its issuance and expires on the 5.5 year anniversary of the date of issuance. The warrants and the shares of our common stock issuable upon the exercise of the warrants were not registered under the Securities Act of 1933, as amended, or the Securities Act, were not offered pursuant to a registration statement and were offered pursuant to the exemption provided in Section 4(a)(2) under the Securities Act, and Rule 506(b) promulgated thereunder. All such warrants are exercisable on a cashless basis if at the time of exercise there is no effective registration statement registering, or the prospectus contained therein is not available for, the resale of shares of common stock for which the warrants are exercisable.

On May 31, 2018, we also issued unregistered warrants to purchase up to an aggregate of 142,676 shares of our common stock to the designees of H.C. Wainwright & Co., LLC, or Wainwright, as partial compensation for placement agent services by Wainwright in connection with our registered direct public offering in May 2018, or the May 2018 Registered Direct Public Offering, and the May 2018 Private Placement. Such unregistered warrants have an initial exercise price of \$3.679 per share (subject to adjustment as set forth therein), are immediately exercisable and expire on May 30, 2023.

We are filing a registration statement on Form S-1, of which this prospectus forms a part, to provide for the resale (i) by the May 2018 Private Placement Purchasers of up to 1,528,668 shares of our common stock issuable upon exercise of

the warrants we sold in the May 2018 Private Placement and (ii) by designees of Wainwright of 142,676 shares of our common stock issuable upon the exercise of the warrants we issued to Wainwright's designees.

*July 2018 Private Placement*

On July 2, 2018, we entered into securities purchase agreements with certain institutional and accredited investors named therein, or the July 2018 Private Placement Purchasers, pursuant to which we agreed, among other things, to issue and sell common stock purchase warrants exercisable for up to 958,152 shares of our common stock at an exercise price of \$2.70 per share (subject to adjustment as set forth therein) to the July 2018 Private Placement Purchasers. We refer to the sale of these warrants as the July 2018 Private Placement.

Each warrant sold in the July 2018 Private Placement was immediately exercisable on the date of its issuance and expires on the 5.5 year anniversary of the date of issuance. The warrants and the shares of our common stock issuable upon the exercise of the warrants were not registered under the Securities Act, were not offered pursuant to a registration statement and were offered pursuant to the exemption provided in Section 4(a)(2) under the Securities Act, and Rule 506(b) promulgated thereunder. All such warrants are exercisable on a cashless basis if at the time of exercise there is no effective registration statement registering, or the prospectus contained therein is not available for, the resale of shares of common stock for which the warrants are exercisable.

On July 5, 2018, we also issued unregistered warrants to purchase up to an aggregate of 103,186 shares of our common stock to the designees of Wainwright as partial compensation for placement agent services by Wainwright in connection with our registered direct public offering in July 2018, or the July 2018 Registered Direct Public Offering, and the July 2018 Private Placement. Such unregistered warrants have an initial exercise price of \$3.464 per share (subject to adjustment as set forth therein), are immediately exercisable and expire on July 3, 2023.

We are filing a registration statement on Form S-1, of which this prospectus forms a part, to provide for the resale (i) by the July 2018 Private Placement Purchasers of up to 958,152 shares of our common stock issuable upon exercise of the warrants we sold in the July 2018 Private Placement and (ii) by designees of Wainwright of 103,186 shares of our common stock issuable upon the exercise of the warrants we issued to Wainwright's designees.



### The Offering

Shares of common stock offered by the selling stockholders: 2,732,682 shares of common stock issuable upon exercise of certain outstanding common stock purchase warrants

Shares of common stock outstanding before this offering: 9,314,982 shares

Shares of common stock outstanding after completion of this offering (assuming full exercise of the common stock purchase warrants that are exercisable for the shares offered hereby): 12,047,664 shares

Terms of this offering: The selling stockholders, including their transferees, donees, pledgees, assignees and successors-in-interest, may sell, transfer or otherwise dispose of any or all of the shares of common stock offered by this prospectus from time to time on the Nasdaq Capital Market or any other stock exchange, market or trading facility on which the shares are traded or in private transactions. The shares of common stock may be sold at fixed prices, at market prices prevailing at the time of sale, at prices related to prevailing market price or at negotiated prices.

Use of proceeds: All proceeds from the sale of shares of common stock offered hereby will be for the account of the selling stockholders. We will not receive any proceeds from the sale of common stock offered pursuant to this prospectus. We will receive proceeds upon cash exercises, if any, of the warrants to purchase the shares of common stock offered hereby. See the caption "Use of Proceeds" in this prospectus.

Nasdaq Capital Market symbol: FCSC

Trading: Our common stock currently trades on the Nasdaq Capital Market. There is no established trading market for the warrants that are exercisable for the shares offered hereby, and we do not intend to list the warrants on any securities exchange or other trading system.

Risk factors: Investing in our securities involves a high degree of risk and purchasers of our securities may lose their entire investment. See the information under the caption "Risk Factors" beginning on page 7 of this prospectus and the other information included elsewhere in this prospectus and incorporated by reference herein for a discussion of factors you should consider before deciding to invest in our securities.

### Outstanding Shares

The number of shares of our common stock to be outstanding after this offering is based on 5,672,976 shares of our common stock outstanding as of March 31, 2018, plus (i) 2,038,224 shares of our common stock issued in the May 2018 Registered Direct Public Offering, (ii) 1,474,080 shares of our common stock issued in the July 2018 Registered Direct Public Offering, (iii) 1,528,668 shares of common stock issuable upon exercise of the warrants

issued in connection with the May 2018 Private Placement, (iv) 958,152 shares of common stock issuable upon exercise of the warrants issued in connection with the July 2018 Private Placement, (v) 142,676 shares of our common stock issuable upon exercise of the warrants issued to the designees of Wainwright as partial consideration for Wainwright's placement agent services in connection with the May 2018 Registered Direct Public Offering and the May 2018 Private Placement, (vi) 103,186 shares of our common stock issuable upon exercise of the warrants issued to the designees of Wainwright as partial consideration for Wainwright's placement agent services in connection with the July 2018 Registered Direct Public Offering and the July 2018 Private Placement, and (vii) 129,702 shares of common stock issued upon the exercise of certain of our previously issued warrants subsequent to March 31, 2018, and excludes:

- 1,123,971 shares of our common stock issuable upon the conversion of our outstanding convertible promissory notes, including accrued interest thereon, payable in shares of our common stock, outstanding as of March 31, 2018;
- 720,000 shares of our common stock issuable upon the conversion of our Series A Convertible Preferred Stock, par value \$0.001 per share, or the Series A Preferred Stock, including accrued dividends thereon, payable in shares of our common stock, outstanding as of March 31, 2018;
- 266,561 shares of our common stock issuable upon the exercise of stock options outstanding as of March 31, 2018, at a weighted average exercise price of \$49.90 per share, of which stock options to purchase 143,413 shares of our common stock were then exercisable;
- 4,969,702 shares of our common stock issuable upon the exercise of warrants outstanding as of March 31, 2018 at a weighted average exercise price of \$12.41 per share, (less 129,705 shares of our common stock issued upon stock option exercises subsequent to March 31, 2018 through July 16, 2018), all of which warrants were then exercisable; and
- an aggregate of 237,512 shares of our common stock reserved for future grants of stock options (or other similar equity instruments) under the Fibrocell Science, Inc. 2009 Equity Incentive Plan, as amended, as of March 31, 2018.

## **RISK FACTORS**

Investing in our securities involves a high degree of risk. You should carefully consider and evaluate all of the information contained in this prospectus and in the documents incorporated by reference in this prospectus before you decide to purchase our securities. In particular, you should carefully consider and evaluate the risks and uncertainties described in “Part I — Item 1A. Risk Factors” of our most recent Annual Report on Form 10-K and “Part II — Item 1A. Risk Factors” of our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2018, as updated by the additional risks and uncertainties set forth in the other documents incorporated by reference in this prospectus, as well as the risks and uncertainties described under the heading “Risk Factors” contained in the applicable prospectus or in any other document incorporated by reference into this prospectus. Any of the risks and uncertainties set forth therein could materially and adversely affect our business, results of operations and financial condition, which in turn could materially and adversely affect the trading price or value of our securities. As a result, you could lose all or part of your investment.

## SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements that involve substantial risks and uncertainties. All statements, other than statements of historical facts, included in this prospectus or the documents incorporated herein by reference regarding our strategy, future operations, future product research or development, future financial position, future revenues, projected costs, prospects, plans and objectives of management, are forward-looking statements. The words “anticipate,” “believe,” “goals,” “estimate,” “expect,” “intend,” “may,” “might,” “plan,” “predict,” “project,” “target,” “potential,” “will,” “would,” “could,” “should,” “continue” and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words.

The forward-looking statements in this prospectus include, among other things, statements about:

- our expectation that our existing cash resources will be sufficient to enable us to fund our operations into the fourth quarter of 2019;
- our review of strategic alternatives, including the possible sale or merger of our company;
- future expenses and capital expenditures;
- our estimates regarding expenses, future revenues, capital requirements and needs for, and ability to obtain, additional financing;
- our plans to address our future capital requirements and the consequences of failing to do so;
- our need to raise substantial additional capital to fund our operations;
- our expectation to complete enrollment of patients in the Phase 2 portion of our Phase 1/2 clinical trial of FCX-007 in the third quarter of 2018;
- our plans to report interim data from patients from the Phase 2 portion of our Phase 1/2 clinical trial for FCX-007 and provide a trial update in the first quarter of 2019;
- our plans to use the existing data from the Phase 1 portion of the Phase 1/2 clinical trial of FCX-007 to support a petition for Regenerative Medicine Advanced Therapy or Breakthrough Therapy Designation for FCX-007;
- our expectation to initiate enrollment in a Phase 1/2 clinical trial of FCX-013 in the third quarter of 2018;
- our product development goals under our collaborations with Precigen, Inc., or Precigen, a wholly-owned subsidiary of Intrexon Corporation, or Intrexon, for our product candidates;
- the potential benefits of Fast Track, Orphan Drug and Rare Pediatric Disease designations;
- the potential advantages of our product candidates and technologies; and
- the effect of legal and regulatory developments.

We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, and our stockholders should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make. We have included important factors in the cautionary statements included in this prospectus, particularly in the “Risk Factors” section, that could cause actual results or events to differ materially from the forward-looking statements that we make. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments we may make.

You should read this prospectus and the documents that we have filed as exhibits to this prospectus completely and with the understanding that our actual future results may be materially different from what we expect. The forward-looking statements contained in this prospectus are made as of the date of this prospectus and we do not assume any obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by applicable law.

## SELECTED FINANCIAL DATA

You should read the following selected financial data together with our financial statements and the related notes contained in Item 8 of Part II of our Annual Report on Form 10-K for the fiscal year ended December 31, 2017 and in Item 1 of Part I of our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2018, which are incorporated by reference into this prospectus, except that share and per share information for the periods ended December 31, 2017 and December 31, 2016 have been revised to reflect the 1-for-5 reverse stock split of our issued and outstanding shares of common stock effective at the close of business on May 24, 2018.

We have derived the statements of operations data for each of the two years ended December 31, 2017 and December 31, 2016 from the audited financial statements contained in Item 8 of Part II of our Annual Report on Form 10-K for the fiscal year ended December 31, 2017. We have derived the statements of operation data for the three months ended March 31, 2018 and March 31, 2017 from our unaudited historical condensed financial statements and related notes thereto contained in Item 1 of Part I of our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2018. All per share information for the periods ended December 31, 2017 and December 31, 2016, and periods ended March 31, 2018 and March 31, 2017, have been revised to reflect the 1-for-5 reverse stock split of our issued and outstanding shares of common stock effective at the close of business on May 24, 2018.

The historical financial information set forth below may not be indicative of our future performance and should be read together with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our historical financial statements and notes to those statements included in Item 7 of Part II and Item 8 of Part II, respectively, of our Annual Report on Form 10-K for the fiscal year ended December 31, 2017, and any amendment or update thereto reflected in subsequent filings with the SEC, and all other annual, quarterly and other reports that we file with the SEC after the date of the initial registration statement of which this prospectus forms a part and that also are incorporated herein by reference.

### Fibrocell Science, Inc.

#### Statement of Operations Summary

*(\$ in thousands except share and per share data)*

	(Revised for Stock Split) Three Months Ended March 31, (Unaudited)		(Revised for Stock Split) Year Ended December 31,	
	2018	2017	2017	2016
Total revenue	\$ —	\$ —	\$ —	\$ 355
Total cost of revenue	—	—	—	697
Gross loss	—	—	—	(342)
Operating expenses	2,981	4,454	18,981	26,137
Operating loss	(2,981)	(4,454)	(18,981)	(26,479)
Other income (expense)	80	(553)	2,741	11,187
Loss before income taxes	(2,901)	(5,007)	(16,240)	(15,292)
Income taxes	—	—	—	—
Net loss	(2,901)	(5,007)	(16,240)	(15,292)
Per Share Information:				
Net loss:				
Basic*	\$ (0.55)	\$ (2.98)	\$ (6.66)	\$ (5.22)
Diluted	\$ (0.55)	\$ (2.98)	\$ (6.67)	\$ (5.89)
Weighted average number of common shares outstanding:				
Basic	5,672,976	2,940,625	3,092,543	2,928,364
Diluted	5,672,976	2,941,145	3,093,727	2,929,566

\*Basic and Diluted net loss for the three months ended March 31, 2018 includes \$203, and for the three months ended March 31, 2017 includes \$3,754 in dividends paid in kind and deemed dividends to preferred stockholders. Basic and Diluted net loss for the year ended December 31, 2017 includes \$4,363 in dividends paid in kind and deemed dividends to preferred stockholders.

**Fibrocell Science, Inc.****Loss per Share Summary***(\$ in thousands except share and per share data)*

	(Revised for Stock Split) Three Months Ended March 31, (Unaudited)		(Revised for Stock Split) Year Ended December 31,	
	2018	2017	2017	2016
<b>Loss per share - Basic:</b>				
Net loss	\$ (2,901)	\$ (5,007)	\$ (16,240)	\$ (15,292)
Less: Deemed dividend on Series A preferred stock	(203)	(3,754)	(4,363)	—
Net loss attributed to common stockholders	\$ (3,104)	\$ (8,761)	\$ (20,603)	\$ (15,292)
Numerator for basic loss per share	\$ (3,104)	\$ (8,761)	\$ (20,603)	\$ (15,292)
Denominator for basic loss per share	5,672,976	2,940,625	3,092,543	2,928,364
Basic loss per share	\$ (0.55)	\$ (2.98)	\$ (6.66)	\$ (5.22)
<b>Loss per share - Diluted:</b>				
Numerator for basic loss per share	\$ (3,104)	\$ (8,761)	\$ (20,603)	\$ (15,292)
Adjust: change in fair value of dilutive warrants outstanding	—	7	34	1,958
Numerator for diluted loss per share	\$ (3,104)	\$ (8,768)	\$ (20,637)	\$ (17,250)
Denominator for basic loss per share	5,672,976	2,940,625	3,092,543	2,928,364
Plus: incremental shares underlying "in the money" warrants outstanding	—	520	1,184	1,202
Denominator for diluted loss per share	5,672,976	2,941,145	3,093,727	2,929,566
Numerator for diluted loss per share	\$ (3,104)	\$ (8,768)	\$ (20,637)	\$ (17,250)
Denominator for diluted loss per share	5,672,976	2,941,145	3,093,727	2,929,566
Diluted loss per share	\$ (0.55)	\$ (2.98)	\$ (6.67)	\$ (5.89)
<b>Excluded from Calculation - Antidilutive</b>				
Shares underlying "in the money" options outstanding	—	17,961	46,869	30,024
Shares underlying "out of the money" options outstanding	266,539	207,762	171,057	243,713
Shares underlying "in the money" warrants outstanding	—	—	—	3,572
Shares underlying "out of the money" warrants outstanding	4,969,702	2,073,024	4,969,702	876,489
Shares underlying convertible notes	1,056,068	1,060,899	1,056,068	1,060,899
Shares underlying convertible accrued interest on convertible notes	67,824	24,090	56,752	8,028
Shares underlying convertible preferred stock	712,000	688,000	704,000	—

## USE OF PROCEEDS

All shares of our common stock offered by this prospectus are being registered for the account of the selling stockholders. We will not receive any of the proceeds from the sale of these shares.

We will receive proceeds from the cash exercise of the warrants which, if exercised in cash with respect to all of the 2,732,682 shares of common stock, would result in gross proceeds of approximately \$7.8 million to us. We will use any proceeds received by us from the cash exercise of the warrants for the continued clinical and pre-clinical development of our product candidates, FCX-007 and FCX-013, and for other general corporate purposes, which may include working capital, research and development expenditures, the funding of in-licensing agreements for product candidates, additional technologies or other forms of intellectual property, expenditures relating to manufacturing infrastructure and other capital expenditures and general and administrative expenses.

We cannot predict when or if the warrants will be exercised, and it is possible that the warrants may expire and never be exercised. In addition, the warrants are exercisable on a cashless basis if at the time of exercise there is no effective registration statement registering, or the prospectus contained therein is not available for, the issuance of shares of common stock for which the warrants are exercisable. As a result, we may never receive meaningful, or any, cash proceeds from the exercise of the warrants, and we cannot plan on any specific uses of any proceeds we may receive beyond the purposes described herein.



## MARKET PRICE OF OUR COMMON STOCK

Our common stock trades on the Nasdaq Capital Market under the symbol "FCSC." The following table sets forth, for the periods indicated, the high and low sale prices per share for our common stock, adjusted to reflect the effect of the reverse stock split of our common stock on March 10, 2017 and the reverse stock split of our common stock on May 24, 2018, as reported by the Nasdaq Capital Market:

	Market Price	
	High	Low
First quarter 2016	\$ 69.30	\$ 30.60
Second quarter 2016	\$ 56.70	\$ 13.65
Third quarter 2016	\$ 20.70	\$ 10.50
Fourth quarter 2016	\$ 15.75	\$ 10.50
First quarter 2017	\$ 17.55	\$ 7.80
Second quarter 2017	\$ 23.20	\$ 9.00
Third quarter 2017	\$ 20.85	\$ 12.05
Fourth quarter 2017	\$ 16.45	\$ 3.05
First quarter 2018	\$ 4.10	\$ 2.55
Second quarter 2018	\$ 5.17	\$ 2.21
Third quarter 2018 (through July 26, 2018)	\$ 2.73	\$ 2.13

As of July 26, 2018, the closing price of our common stock as reported by the Nasdaq Capital Market was \$2.25. As of March 31, 2018, we had approximately 36 holders of record of our common stock. This number does not include beneficial owners whose shares were held in street name.

## DIVIDEND POLICY

We have never declared or paid any cash dividends on our common stock. We currently intend to retain all of our future earnings, if any, to finance the growth and development of our business. We do not intend to pay cash dividends in respect of our common stock in the foreseeable future. In addition, our outstanding convertible promissory notes and our outstanding Series A Preferred Stock each restrict our ability to pay cash dividends on our equity securities.

## DESCRIPTION OF CAPITAL STOCK

The following description of our capital stock and provisions of our Restated Certificate of Incorporation, as amended, or the Certificate of Incorporation, and our Fourth Amended and Restated Bylaws, as amended, or the Bylaws, are summaries and are qualified by reference to the Certificate of Incorporation and the Bylaws. We have filed copies of these documents with the SEC as exhibits to our registration statement of which this prospectus forms a part.

Our authorized capital stock consists of 150,000,000 shares of our common stock, par value \$0.001 per share, and 5,000,000 shares of our preferred stock, par value \$0.001 per share, 8,000 of which preferred stock is designated as Series A Preferred Stock.

As of March 31, 2018, we had 5,672,976 shares of our common stock and 8,000 shares of our Series A Preferred Stock issued and outstanding held by 36 and 5 stockholders of record, respectively. This number does not include beneficial owners whose shares were held in street name.

### **Common Stock**

Holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote of stockholders and do not have cumulative voting rights. Each election of directors by our stockholders will be determined by a plurality of the votes cast by the stockholders entitled to vote on the election. Holders of common stock are entitled to receive proportionately any dividends as may be declared by our board of directors, subject to any preferential dividend rights of then outstanding preferred stock.

In the event of our liquidation or dissolution, the holders of our common stock are entitled to receive proportionately all assets available for distribution to stockholders after the payment of all debts and other liabilities and subject to the prior rights of any of our then outstanding preferred stock. Holders of our common stock have no preemptive, subscription, redemption or conversion rights. The rights, preferences and privileges of holders of our common stock are subject to and may be adversely affected by the rights of the holders of shares of any series of our preferred stock that we may designate and issue in the future.

### **Preferred Stock**

Under the terms of our Certificate of Incorporation, our board of directors is authorized to issue shares of preferred stock in one or more series without stockholder approval. Our board of directors has the discretion to determine the rights, preferences, privileges and restrictions, including voting rights, dividend rights, conversion rights, redemption privileges and liquidation preferences, of each series of preferred stock.

The purpose of authorizing our board of directors to issue preferred stock and determine its rights and preferences is to eliminate delays associated with a stockholder vote on specific issuances. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions, future financings and other corporate purposes, could have the effect of making it more difficult for a third party to acquire, or could discourage a third party from seeking to acquire, a majority of our outstanding voting stock.

### ***Series A Preferred Stock***

On March 7, 2017, we entered into a Securities Purchase Agreement with certain of our existing investors pursuant to which we issued and sold a total of 8,000 units, which we refer to each as a Unit and collectively as the Units, for a purchase price of \$1,000 per Unit, with each Unit consisting of (i) one share of our Series A Preferred Stock convertible into 86 shares of our common stock and (ii) an accompanying warrant to purchase up to a number of shares of common stock equal to 100% of the conversion shares issuable on March 7, 2017 pursuant to the shares of Series A Preferred Stock purchased by each investor. We refer to the foregoing transactions as the Series A Preferred Stock Offering.

*Voluntary Conversions by Holders.*

Each holder of Series A Preferred Stock may, at any time, elect to convert shares of Series A Preferred Stock into shares of our common stock at the Conversion Price, subject to certain beneficial ownership limitations described below. The number of shares into which each share of Series A Preferred Stock is determined by dividing the then stated value of the share of Series A Preferred Stock by the Conversion Price. The Conversion Price is defined as \$11.6355 (subject to adjustment for stock splits, stock dividends, stock combinations, recapitalizations or similar events).

*Fundamental Transactions; Change of Control.*

In the event we effect certain mergers, consolidations, sales of substantially all of our assets, tender or exchange offers, reclassifications or share exchanges in which our common stock is effectively converted into or exchanged for other securities, cash or property, we consummate a business combination in which another person acquires 50% of the outstanding shares of our common stock, or any person or group becomes the beneficial owner of 50% of the aggregate ordinary voting power represented by our issued and outstanding common stock, then, upon any subsequent conversion of the Series A Preferred Stock, the holders of such Series A Preferred Stock will have the right to receive any shares of the successor or acquiring corporation and any additional consideration it would have been entitled to receive if it had been a holder of the number of shares of common stock then issuable upon conversion in full (including accrued but unpaid dividends thereon) of the Series A Preferred Stock immediately prior to any of the foregoing transactions.

In addition, we have agreed to have any successor entity in any of the foregoing transactions in which we are not the surviving entity to assume in writing all of our obligations under the Certificate of Designation of Preferences, Rights and Limitations of Series A Convertible Preferred Stock, or the Certificate of Designations.

*Limitations on Conversion and Issuance.*

The Series A Preferred Stock may not be converted and shares of our common stock may not be issued under the Certificate of Designation with respect to such Series A Preferred Stock if, after giving effect to the conversion or issuance, a holder together with its affiliates would beneficially own in excess of 4.99% of the outstanding shares of our common stock, or the Ownership Threshold; provided, however, that if a holder, together with its affiliates, comes to own a percentage of our common stock in excess of the Ownership Threshold after the date hereof, the percentage limitation shall increase to 9.99%. Such increased percentage shall continue to apply until the holder is deemed to own an amount of shares less than or equal to the Ownership Threshold of the outstanding shares of common stock, at which point the Ownership Threshold will apply again.

This limitation on beneficial ownership may be increased, decreased or terminated, in the sole discretion of each holder of the Series A Preferred Stock, upon sixty-one (61) days' written notice to us by such holder of Series A Preferred Stock.

*Dividends.*

Holders of the Series A Preferred Stock are entitled to receive, and we shall pay, cumulative dividends at a rate per share of 4% per annum (calculated quarterly as a percentage of the applicable stated value per share for each quarterly period). After five years, holders of the Series A Preferred Stock are entitled to receive cumulative dividends at a rate per share of 8% per annum (calculated quarterly as a percentage of the applicable stated value per share for such quarterly period). Dividends on a share of Series A Preferred Stock increases such share of Series A Preferred Stock's stated value and are payable by way of inclusion in the stated value (i) on the applicable conversion date (but only with respect to the shares of Series A Preferred Stock being converted), (ii) upon our liquidation and (iii) upon the occurrence of a fundamental transaction.

If we, at any time while the Series A Preferred Stock is outstanding, pay a stock dividend or otherwise make a distribution or distributions payable in shares of our common stock on shares of our common stock or any other common stock equivalents, each holder of Series A Preferred Stock shall be entitled to receive such dividend or distribution in such amounts as each such holder of Series A Preferred Stock would have been entitled to receive, on a per share basis, if

the shares of Series A Preferred Stock held by each such holder were converted into shares of common stock at the time of payment of such stock dividend or distribution.

*Liquidation Preference.*

Upon our liquidation, dissolution or winding up, the holders of the Series A Preferred Stock shall be entitled to receive out of our assets, whether capital or surplus, an amount equal to such holder's then stated value for each share of Series A Preferred Stock before any distribution to the holders of our common stock, any class or series of preferred stock and all other common stock equivalents other than those securities which are explicitly senior or *pari passu* to the Series A Preferred Stock in redemption, distribution of assets upon a liquidation or dividends. If there are insufficient assets to pay in full such amounts, then the available assets shall be ratably distributed to the holders of the Series A Preferred Stock in accordance with the respective amounts that would be payable on such shares if all amounts payable thereon were paid in full.

*Redemption Rights.*

We are not obligated to redeem or repurchase any shares of Series A Preferred Stock. Shares of Series A Preferred Stock are not otherwise entitled to any redemption rights, or mandatory sinking fund or analogous fund provisions.

*Voting Rights.*

Shares of Series A Preferred Stock will generally have no voting rights, except as required by law; provided, however, that without the prior written consent of the holders of at least 70% of the then outstanding shares of Series A Preferred Stock, we may not: (i) alter or change adversely the powers, preferences or rights given to the Series A Preferred Stock or alter or amend the Certificate of Designation; (ii) amend our Certificate of Incorporation or other charter documents in any manner that adversely affects any rights of a holder of the Series A Preferred Stock; (iii) authorize or create any class of stock ranking as to redemption, distribution of assets upon liquidation or dividends senior to, or otherwise *pari passu* with, the Series A Preferred Stock; (iv) declare or make any dividends other than dividend payments or other distributions payable solely in the common stock; or (v) enter into any agreement with respect to any of the foregoing.

*Transfer of Series A Preferred Stock.*

We will register the transfer of any shares of the Series A Preferred Stock in our preferred stock register, upon surrender of the certificates evidencing such shares to be transferred, duly endorsed by a holder of shares of Series A Preferred Stock. Upon any such registration or transfer, a new certificate evidencing the shares of Series A Preferred Stock so transferred will be issued to the transferee and a new certificate evidencing the remaining portion of the shares not so transferred, if any, will be issued to the transferring holder, in each case, within three (3) business days.

*No Exchange Listing of Preferred Shares.*

The Series A Preferred Stock is not currently listed on any national securities exchange or other nationally recognized trading system and we do not plan on making an application to list the Series A Preferred Stock on any national securities exchange or other nationally recognized trading system. Our common stock issuable upon conversion of shares of Series A Preferred Stock is listed on the Nasdaq Capital Market.

**Warrants**

As of March 31, 2018, we had outstanding:

- warrants held by certain of our investors issued in connection with a 2012 convertibles notes financing to purchase up to 75,040 shares of our common stock, at an exercise price of \$37.50 per share and which expired on June 1, 2018;

- warrants held by certain of our investors to purchase up to an aggregate of 104,676 shares of our common stock, at an exercise price of \$112.50 per share and which will remain exercisable until December 13, 2018;
- warrants held by certain of our investors issued in connection with a 2016 private placement of convertible promissory notes, or the 2016 Private Placement Warrants, to purchase up to an aggregate of 1,205,840 shares of our common stock, at an exercise price of \$22.50 per share and which will remain exercisable until September 7, 2021;
- warrants held by certain of our investors, and issued in connection with the Series A Convertible Preferred Offering to purchase up to an aggregate of 687,468 shares of our common stock, at a weighted-average exercise price of \$12.69 per share and which will remain exercisable until March 8, 2022;
- warrants held by certain of our investors to purchase up to an aggregate of 2,809,404 shares of our common stock, at a weighted-average exercise price of \$3.85 per share and which will remain exercisable until December 11, 2022; and
- warrants held by certain of our investors to purchase up to an aggregate of 87,274 shares of our common stock, at a weighted-average exercise price of \$4.813 per share and which will remain exercisable until December 7, 2022.

Subsequent to March 31, 2018, we issued (i) common stock purchase warrants to purchase up to 1,528,668 shares of our common stock for an exercise price of \$2.86 per share to certain institutional and accredited investors and which will remain exercisable until November 30, 2023, (ii) common stock purchase warrants to purchase up to 958,152 shares of our common stock for an exercise price of \$2.70 per share to certain institutional and accredited investors and which will remain exercisable until January 5, 2024, (iii) common stock purchase warrants to purchase up to 142,676 shares of our common for an exercise price of \$3.679 per share issued to designees of Wainwright as partial compensation for placement agent services by Wainwright in connection with the May 2018 Registered Direct Public Offering and the May 2018 Private Placement and which will remain exercisable until May 30, 2023, and (iv) common stock purchase warrants to purchase up to 103,186 shares of our common stock for an exercise price of \$3.464 per share issued to designees of Wainwright as partial compensation for placement agent services by Wainwright in connection with the July 2018 Registered Direct Public Offering and the July 2018 Private Placement and which will remain exercisable until July 3, 2023.

These warrants provide for adjustments in the event of specified mergers, reorganizations, reclassifications, stock dividends, stock splits or other changes in our corporate structure.

#### **Options**

As of March 31, 2018, options to purchase an aggregate of 266,561 shares of our common stock, at a weighted-average exercise price of 49.90 per share, were outstanding.

## **Delaware Anti-Takeover Law and Certain Charter and Bylaw provisions**

Provisions of Delaware law and our Certificate of Incorporation and Bylaws could make the acquisition of our company through a tender offer, a proxy contest or other means more difficult and could make the removal of incumbent officers and directors more difficult. We expect these provisions to discourage coercive takeover practices and inadequate takeover bids and to encourage persons seeking to acquire control of our company to first negotiate with our board of directors. We believe that the benefits provided by our ability to negotiate with the proponent of an unfriendly or unsolicited proposal outweigh the disadvantages of discouraging these proposals. We believe the negotiation of an unfriendly or unsolicited proposal could result in an improvement of its terms.

Our Certificate of Incorporation provides for our board of directors to be divided into three classes serving staggered terms. Approximately one-third of our board of directors will be elected each year. The provision for a classified board could prevent a party who acquires control of a majority of the outstanding voting stock from obtaining control of our board of directors until the second annual stockholders' meeting following the date the acquirer obtains the controlling stock interest. The classified board provision could discourage a potential acquirer from making a tender offer or otherwise attempting to obtain control of our company and could increase the likelihood that incumbent directors will retain their positions.

Our Bylaws do not permit stockholders to call a special meeting of stockholders. Our Bylaws provide that special meetings of the stockholders may be called only by a majority of the members of our board of directors, the Chairman of our board of directors, our Chief Executive Officer or our President. Our Bylaws require that all stockholder actions be taken by a vote of the stockholders at an annual or special meeting, and do not permit our stockholders to act by written consent without a meeting. Our Bylaws provide for an advance notice procedure for stockholder proposals to be brought before an annual meeting of our stockholders, including proposed nominations of persons for election to our board of directors. At an annual meeting, stockholders may only consider proposals or nominations specified in the notice of meeting or brought before the meeting by or at the direction of our board of directors. Stockholders may also consider a proposal or nomination by a person who was a stockholder of record on the record date for the meeting, who is entitled to vote at the meeting and who has given to our Secretary timely written notice, in proper form, of his, her or its intention to bring that business before the meeting. The Bylaws do not give our board of directors the power to approve or disapprove stockholder nominations of candidates or proposals regarding other business to be conducted at a special or annual meeting of the stockholders. However, our Bylaws may have the effect of precluding the conduct of business at a meeting if the proper procedures are not followed. These provisions may also discourage or deter a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to obtain control of our company.

### *Preferred Stock*

Our board of directors has the authority, without action by our stockholders, to designate and issue preferred stock in one or more series. Our board of directors may also designate the rights, preferences and privileges of each series of preferred stock, any or all of which may be greater than the rights of the common stock. It is not possible to state the actual effect of the issuance of any shares of preferred stock on the rights of holders of the common stock until our board of directors determines the specific rights of the holders of the preferred stock. However, these effects might include: (a) restricting dividends on the common stock; (b) diluting the voting power of the common stock; (c) impairing the liquidation rights of the common stock; and (d) delaying or preventing a change in control of our company without further action by our stockholders.

### **Registration Rights**

On September 7, 2016, we entered into a registration rights agreement with certain holders of our convertible promissory notes, and warrants in connection with a private placement transaction, pursuant to which we will, upon request pursuant to the registration rights agreement, register under the Securities Act for resale shares of our common stock issuable upon the conversion of such notes or the exercise of such warrants and any other shares held by the investors in the private placement. The registration rights agreement contains customary terms such as demand and piggyback registration rights. We have complied with our obligations under this registration rights agreement in connection with the filing of this registration statement, of which this prospectus forms a part.

If we fail, under certain circumstances to file and keep effective a registration statement with respect to the securities covered under the registration rights agreement, we have agreed to pay liquidated damages to each investor in an amount equal to one percent (1.0%) of the aggregate amount invested by such investor pursuant to the convertible promissory notes then owned by such investor for each 30-day period or pro rata for any portion thereof during which the failure to file or keep effective continues. The registration rights will terminate with respect to each investor upon the date such investor ceases to hold registrable securities under the terms of the registration rights agreement.

**Transfer Agent and Registrar**

Our transfer agent and registrar for our common stock is Broadridge Corporate Issuer Solutions, Inc.

**Nasdaq Capital Market**

Our common stock is listed on the Nasdaq Capital Market under the symbol "FCSC."

## CERTAIN RELATIONSHIPS AND TRANSACTIONS WITH RELATED PERSONS

Since January 1, 2016, we have engaged in the following transactions with our directors, executive officers, holders of more than 5% of our voting securities, and affiliates or immediate family members of our directors, executive officers, and holders of more than 5% of our voting securities. We believe that all of these transactions were on terms as favorable as could have been obtained from unrelated third parties.

### Exclusive Channel Collaboration Agreements

We are a party to two separate exclusive channel collaboration agreements with Precigen, a wholly-owned subsidiary of Intrexon, pursuant to which we are Precigen's exclusive channel collaborator in the development and commercialization of products within certain specified fields. We engage Precigen for support services for the research and development of product candidates covered under these agreements and reimburse Precigen for its cost for time and materials for such work.

Our first exclusive channel collaboration agreement with Precigen, or the 2012 ECC, was entered into in October 2012, and was subsequently amended in June 2013 and January 2014. FCX-007 and FCX-013, our gene-therapy product candidates for the treatment of recessive dystrophic epidermolysis bullosa and linear scleroderma, respectively, are being developed under the 2012 ECC. We incurred research and development expenses of approximately \$3.7 million and \$5.7 million during the years ended December 31, 2016 and 2017, respectively, under the 2012 ECC. We have incurred research and development expenses of approximately \$(0.2) million through June 30, 2018 under the 2012 ECC.

In December 2015, we entered into our second exclusive channel collaboration agreement with Precigen, or the 2015 ECC. We are currently in the research phase for a gene-therapy product for arthritis and related conditions under the 2015 ECC. In 2016 we paid Intrexon \$10.0 million related to an up-front technology fee due under the 2015 ECC. We did not incur any research and development expenses under the 2015 ECC during 2016, 2017 or through June 30, 2018.

Randal J. Kirk is the chairman of the board of directors and chief executive officer of Intrexon. Together with his affiliates, Mr. Kirk owns more than 50% of Intrexon's common stock and approximately 18% of our common stock. Two of our directors, Julian Kirk (who is the son of Randal J. Kirk) and Marcus E. Smith, are officers of Third Security, which is owned by Randal J. Kirk.

### Participation in 2016 Private Placement

On September 7, 2016, we issued an aggregate of approximately \$18.1 million in principal of convertible promissory notes and the 2016 Private Placement Warrants, in a private placement, or the 2016 Private Placement, to institutional and accredited investors. We refer to these convertible promissory notes each as a Note and collectively as the Notes.

The Notes bear interest at 4% per annum and have a stated maturity date of the earlier of (i) September 7, 2026 and (ii) one-hundred and eighty (180) days after the date on which our product candidate, FCX-007, is approved by the U.S. Food and Drug Administration for the treatment of recessive dystrophic epidermolysis bullosa. The Notes bear interest at four percent (4%) per annum which we may elect to pay in cash or accrue. Commencing September 8, 2016, we have elected to accrue interest. Each individual Note holder has the right to require us to repay all or any portion of the unpaid principal from time to time on or after September 7, 2021. With respect to accrued and unpaid interest on the Note, each Note holder may elect, at any time and from time to time, to have any accrued and unpaid interest converted into shares of our common stock. In addition, each Note holder may elect to accelerate the repayment of all unpaid principal and accrued interest under such holder's Note upon consummation of a specified change of control transaction or occurrence of certain events of default as specified in the Notes.

In addition, upon an event of default, the base interest rate (excluding any additional interest) for the Notes automatically increases to twelve percent (12%) per annum. Subject to any applicable cure period set forth in the



Notes, all amounts outstanding with respect to the Notes (principal and accrued interest) would become due and payable immediately upon an event of default. The conversion price of the Notes, the exercise price of the accompanying warrants and the number of shares of our common stock issuable upon conversion of the Notes and exercise of the accompanying warrants are each subject to adjustment upon certain corporate events, including stock dividends, stock splits and distributions of cash or other assets to our stockholders.

Affiliates of Randal J. Kirk (including Intrexon) participated in the 2016 Private Placement, and were issued an aggregate of \$6,762,500 in principal of Notes (all of which remained outstanding as of March 31, 2018) and 2016 Private Placement Warrants to purchase an aggregate of 450,835 shares of common stock.

#### **Registration Rights Agreement**

On September 7, 2016, we entered into a registration rights agreement with certain holders of the Notes and the 2016 Private Placement Warrants in connection with the 2016 Private Placement, pursuant to which we will, upon request pursuant to the registration rights agreement, register under the Securities Act for resale shares of our common stock issuable upon the conversion of the Notes or the exercise of the 2016 Private Placement Warrants and any other shares of our common stock held by the investors in the 2016 Private Placement. The registration rights agreement contains customary terms such as demand and piggyback registration rights.

#### **Participation in Series A Preferred Stock Offering**

On March 7, 2017, we entered into a Securities Purchase Agreement with certain of our existing investors pursuant to which we issued and sold a total of 8,000 Units for a purchase price of \$1,000 per Unit, with each Unit consisting of (i) one share of our Series A Preferred Stock, or the Series A Preferred Stock, convertible into 86 shares of our common stock and (ii) an accompanying warrant to purchase up to a number of shares of common stock equal to 100% of the conversion shares issuable on March 7, 2017 pursuant to the shares of Series A Preferred Stock purchased by each investor, or the March 2017 Warrants.

Affiliates of Randal J. Kirk (including Intrexon) participated in the Series A Preferred Stock Offering, and were issued an aggregate of 3,016 shares of Series A Preferred Stock and March 2017 Warrants to purchase 259,176 shares of common stock for aggregate gross proceeds of \$3,016,000.

## SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth information known to us concerning the beneficial ownership of our common stock as of July 24, 2018 (unless otherwise indicated by footnote below) for:

- each of our directors, including our Chief Executive Officer;
- each of our other named executive officers identified in the “Executive Compensation” section of our Proxy Statement filed with the SEC on April 2, 2018;
- all of our current directors and executive officers as a group; and,
- each stockholder known by us to own beneficially more than 5% of our common stock.

Beneficial ownership is determined in accordance with the rules of the SEC as indicated in the footnotes to the table below.

Name of Beneficial Owner	Common Stock Beneficially Owned (1)	Percent of Class (2)
<b><i>Named Executive Officers and Directors</i></b> <sup>(12)</sup> :		
John M. Maslowski	21,367	(3) *
Sean D. Buckley	3,759	(4) *
Michael F. Marino	—	(5) *
Lisa A. Embon	—	(6) *
Julian Kirk	11,134	(4) *
Marc Mazur	13,069	(7) *
Kelvin Moore	12,506	(8) *
Marcus E. Smith	11,134	(4) *
Christine St.Clare	11,801	(9) *
Douglas J. Swirsky	11,134	(4) *
All Current Executive Officers and Directors as a Group (8 persons)	95,904	(10) 1.0%
<b><i>Greater Than 5% Stockholders:</i></b>		
Randal J. Kirk (11)	2,198,939	22.3%

\* Represents less than 1% of the outstanding shares of our common stock.

(1) Beneficial ownership is determined in accordance with Rule 13d-3 under the Securities Exchange Act of 1934, or the Exchange Act. A person or group is deemed to be the beneficial owner of any shares of our common stock over which such person or group has sole or shared voting or investment power, plus any shares which such person or group has the right to acquire beneficial ownership of within 60 days of July 24, 2018, whether through the exercise of options, warrants or otherwise. Unless otherwise indicated in the footnotes, each person or entity identified in the table has sole voting and investment power with respect to all shares shown as beneficially owned by them, subject to applicable community property laws.

(2) The beneficial ownership percentage is calculated for each person or group separately because shares of our common stock subject to options, warrants or other rights to acquire our common stock that are currently exercisable or exercisable within 60 days of July 24, 2018 are considered outstanding and beneficially owned by the person or group holding such options, warrants or other rights but not for the purpose of

calculating the percentage ownership of any other person or group. As a result, the beneficial ownership percentage for each person or group is calculated by dividing (x) the number of shares reported in the table as beneficially owned by such person or group, by (y) 9,314,982 shares (which represents the number of shares of our common stock that were outstanding as of July 24, 2018) plus the number of shares that such person or group has the right to acquire beneficial ownership of within 60 days of July 24, 2018 as indicated in the footnotes below.

- (3) Consists of (i) 164 shares of our common stock and (ii) options to purchase an aggregate of 21,203 shares of our common stock exercisable within 60 days of July 24, 2018.
- (4) The share amounts set forth in the table consist solely of shares underlying one or more outstanding options to purchase our common stock exercisable within 60 days of July 24, 2018.
- (5) Mr. Marino resigned in January 2017. At the time of his resignation, he held no shares of our common stock and all vested stock awards owned by him expired 3 months after his resignation.
- (6) Ms. Embon resigned in August 2017. At the time of her resignation, she held no shares of our common stock nor did she have the right to acquire beneficial ownership of any shares of our common stock.
- (7) Consists of (i) 600 shares of our common stock and (ii) options and warrants to purchase an aggregate of 12,469 shares of our common stock exercisable within 60 days of July 24, 2018.
- (8) Consists of (i) 304 shares of our common stock and (ii) options to purchase 12,202 shares of our common stock exercisable within 60 days of July 24, 2018.
- (9) Consists of (i) 667 shares of our common stock and (ii) options to purchase 11,134 shares of our common stock exercisable within 60 days of July 24, 2018.
- (10) Consists of (i) 1,735 shares of our common stock and (ii) options and warrants to purchase an aggregate of 94,169 shares of our common stock exercisable within 60 days of July 24, 2018.
- (11) Based on the Schedule 13D/A filed on December 11, 2017, or the "Schedule 13D/A, by Randal J. Kirk, Third Security, LLC, or Third Security, NRM VII Holdings I, LLC, or NRM VII Holdings, Kapital Joe, LLC, or Kapital Joe, Mascara Kaboom, LLC, or Mascara Kaboom, and Intrexon. According to the Schedule 13D/A, Randal J. Kirk has sole voting and investment power with respect to 1,772,219 shares and shared voting and investment power with respect to 426,719 shares of common stock held, in each case, by NRM VII Holdings, Kapital Joe, Mascara Kaboom and Intrexon.

According to the Schedule 13D/A jointly filed by Mr. Kirk and his affiliated entities, the Notes, the shares of Series A Preferred Stock, the 2016 Private Placement Warrants, the March 2017 Warrants and common stock purchase warrants we issued in connection with our underwritten public offering in December 2017, or the December 2017 Warrants, contain certain conversion and exercise restrictions. If NRM VII Holdings, Intrexon, Kapital Joe and Mascara Kaboom exercised the 2016 Private Placement Warrants, the March 2017 Warrants and the December 2017 Warrants held by each such entity and converted (x) the principal and accrued interest of the Notes held by each such entity and (y) the Series A Preferred Stock held by each such entity, NRM VII Holdings, Intrexon, Kapital Joe and Mascara Kaboom would receive, in the aggregate, (i) 1,255,467 shares of our common stock pursuant to exercise of the 2016 Private Placement Warrants, the March 2017 Warrants and the December 2017 Warrants held by each such entity, (ii) 396,771 of common stock underlying \$6,762,500 outstanding principal amount of the Notes held by each such

entity, (iii) 29,726 shares of common stock underlying an estimated \$506,637 of accrued interest on the Notes held by each such entity and (iv) 274,456 shares of common stock underlying the Series A Preferred Stock held by each such entity (inclusive of dividends through June 30, 2018 payable by way of inclusion in the stated value of the Series A Preferred Stock), resulting in the beneficial ownership of approximately 32.0% of our common stock. NRM VII Holdings is managed by an affiliate that is managed by Third Security which is owned by Mr. Kirk. Kapital Joe and Mascara Kaboom are managed by Third Security. Mr. Kirk could be deemed to have indirect beneficial ownership of the shares of common stock directly beneficially owned by NRM VII Holdings, Intrexon, Kapital Joe and Mascara Kaboom. The address for Randal J. Kirk is c/o Third Security, 1881 Grove Avenue, Radford, Virginia 24141.

(12) The address for each of our directors and named executive officers is c/o Fibrocell, 405 Eagleview Blvd, Exton, Pennsylvania 19341.

## SELLING STOCKHOLDERS

This prospectus covers an aggregate of up to 2,732,682 shares of our common stock that may be sold or otherwise disposed of by the selling stockholders. Such shares are issuable to the selling stockholders upon the exercise of the common stock purchase warrants we issued to the selling stockholders in the May 2018 Private Placement and the July 2018 Private Placement.

The following table sets forth certain information with respect to each selling stockholder, including (i) the shares of our common stock beneficially owned by such selling stockholder prior to this offering, (ii) the number of shares being offered by such selling stockholder pursuant to this prospectus and (iii) such selling stockholder's beneficial ownership after completion of this offering, assuming that all of the shares covered hereby (but none of the other shares, if any, held by the selling stockholders) are sold. The registration of the shares of common stock issuable to the selling stockholders upon the exercise of the warrants does not necessarily mean that the selling stockholders will sell all or any of such shares.

The table is based on information supplied to us by the selling stockholders, with beneficial ownership and percentage ownership determined in accordance with the rules and regulations of the SEC and includes voting or investment power with respect to shares of stock. This information does not necessarily indicate beneficial ownership for any other purpose. In computing the number of shares beneficially owned by a selling stockholder and the percentage ownership of that selling stockholder, shares of common stock subject to warrants held by that selling stockholder that are exercisable as of July 24, 2018, or exercisable within 60 days after July 24, 2018, are deemed outstanding. Such shares, however, are not deemed outstanding for the purposes of computing the percentage ownership of any other selling stockholder. The percentage of beneficial ownership after this offering is based on 9,314,982 shares outstanding on July 24, 2018.

The registration of these shares of common stock does not mean that the selling stockholders will sell or otherwise dispose of all or any of those securities. The selling stockholders may sell or otherwise dispose of all, a portion or none of such shares from time to time. We do not know the number of shares, if any, that will be offered for sale or other disposition by any of the selling stockholders under this prospectus. Furthermore, the selling stockholders may have sold, transferred or disposed of the shares of common stock covered hereby in transactions exempt from the registration requirements of the Securities Act since the date on which we filed this prospectus.

To our knowledge and except as noted below, none of the selling stockholders has, or within the past three years has had, any position, office or other material relationship with us or any of our predecessors or affiliates.

<u>Selling Stockholder(1)</u>	<u>Beneficial Ownership Before This Offering</u>		<u>Beneficial Ownership After This Offering</u>		
	<u>Number of Shares Owned(2)</u>		<u>Shares Underlying Warrants Offered Hereby(3)</u>	<u>Number of Shares Owned</u>	<u>Percentage of Outstanding Shares</u>
Sabby Volatility Warrant Master Fund, Ltd. (4)	473,193	(5)	828,940	516,730	4.99%
CVI Investments, Inc. (6) c/o Heights Capital Management 101 California Street Suite 3250 San Francisco, CA 94111	474,115	(7)	509,556	287,794	2.93%
Anson Investments Master Fund LP (8)	489,230		828,940	—	*
Intracoastal Capital, LLC (9)	654,850		319,384	374,427	3.88%
Noam Rubinstein (10)	104,937		77,446	27,491	*
Michael Vasinkevich (10)	214,872		158,581	56,921	*
Mark Viklund (10)	9,995		7,376	2,619	*
Charles Worthman (10)	3,332		2,459	873	*

\* Less than one percent.

- (1) This table and the information in the notes below are based upon information supplied by the selling stockholders, including reports and amendments thereto filed with the SEC on Schedule 13G.
- (2) All of the warrants that are exercisable for the shares of our common stock offered hereby contain certain beneficial ownership limitations, which provide that a holder of the warrants will not have the right to exercise any portion of its warrants if the holder, together with its affiliates, would beneficially own in excess of 4.99% of the number of shares of our common stock outstanding immediately after giving effect to such exercise, provided that upon at least 61 days prior notice to us, a holder may increase or decrease such limitation up to a maximum of 9.99% of the number of shares of common stock outstanding. As a result, the number of shares of common stock reflected in this column as beneficially owned by each selling stockholder includes (a) any outstanding shares of our common stock held by such selling stockholder, and (b) if any, the number of shares of common stock subject to the warrants exercisable for the shares offered hereby and any other warrants that may be held by such selling stockholder, in each case which such selling stockholder has the right to acquire as of July 24, 2018 or within 60 days thereafter and without it or any of its affiliates beneficially owning more than 4.99% of the number of outstanding shares of our common stock as of July 24, 2018. Notwithstanding the foregoing, the beneficial ownership limitations set forth in the common stock purchase warrants held by Intracoastal, LLC, or Intracoastal, provide that the holder of such common stock warrants will not have the right to exercise any portion of its warrants if the holder, together with its affiliates, would beneficially own in excess of 9.99% of the number of shares of our common stock outstanding immediately after giving effect to such exercise.
- (3) The actual number of shares of common stock offered hereby and included in the registration statement, of which this prospectus forms a part, includes, in accordance with Rule 416 under the Securities Act, such indeterminate number of additional shares of our common stock as may become issuable in connection with

any proportionate adjustment for any stock splits, stock combinations, stock dividends, recapitalizations or similar events with respect to common stock.

- (4) Sabby Management, LLC is the investment manager of Sabby Volatility Warrant Master Fund, Ltd. and shares voting and investment power with respect to these shares in this capacity. As manager of Sabby Management, LLC, Hal Mintz also shares voting and investment power on behalf of the foregoing selling stockholder. Each of Sabby Management, LLC and Hal Mintz disclaims beneficial ownership over the securities listed except to the extent of their pecuniary interest therein. The address of the principal business office of each of Sabby Volatility Warrant Master Fund, Ltd., Sabby Management, LLC and Hal Mintz is 10 Mountainview Road, Suite 205, Upper Saddle River, New Jersey 07458.
- (5) Consists of (i) 305,325 issued and outstanding shares of our common stock held by Sabby Volatility Warrant Master Fund, Ltd. and (ii) 167,868 shares of our common stock issuable upon exercise of certain of our previously-issued common stock purchase warrants.
- (6) Heights Capital Management, Inc. is the authorized agent of CVI Investments, Inc., or CVI, has discretionary authority to vote and dispose of the securities held by CVI and may be deemed to be the beneficial owner of these securities. Martin Kobinger, in his capacity as Investment Manager of Heights Capital Management, Inc., may also be deemed to have investment discretion and voting power over the securities held by CVI. Mr. Kobinger disclaims any such beneficial ownership of the securities. The address of the principal business office of Heights Capital is 101 California Street, Suite 3250, San Francisco, California 94111. The address of the principal business office of CVI is P.O. Box 309GT, Uglund House, South Church Street, George Town, Grand Cayman, KY1-1104 Cayman Islands.
- (7) Consists of (i) 287,794 issued and outstanding shares of our common stock held by CVI and (ii) 108,902 shares of common stock issuable upon exercise of common stock purchase warrants issued in the May 2018 Private Placement.
- (8) Anson Advisors Inc and Anson Funds Management LP, the Co-Investment Advisers of Anson Investments Master Fund LP, or Anson, hold voting and dispositive power over the shares of common stock held by Anson. Bruce Winson is the managing member of Anson Management GP LLC, which is the general partner of Anson Funds Management LP. Moez Kassam and Amin Nathoo are directors of Anson Advisors Inc. Messrs. Winson, Kassam and Nathoo each disclaim beneficial ownership of these shares of common stock except to the extent of their pecuniary interest therein. The address of the principal business office of each of Anson Funds Management LP, Anson Management GP LLC and Mr. Winson is 5950 Berkshire Lane, Suite 210 Dallas, Texas 75225. The address of the principal business office of each of Anson Advisors Inc. and Messrs. Nathoo and Kassam is 155 University Ave, Suite 207, Toronto, ON M5H 3B7. The address of the principal business office of Anson is 190 Elgin Ave; George Town, Grand Cayman.
- (9) Mitchell P. Kopin and Daniel B. Asher, each of whom are managers of Intracoastal have shared voting control and investment discretion over the securities reported herein that are held by Intracoastal. As a result, each of Messrs. Kopin and Asher may be deemed to have beneficial ownership (as determined under Section 13(d) of the Exchange Act) of the securities reported herein that are held by Intracoastal. The address of the principal business office of each of Intracoastal and Messrs. Kopin and Asher is 245 Palm Trail, Delray Beach, Florida 33483.
- (10) The selling stockholder is an affiliate of a registered broker-dealer. The shares offered hereby consist of shares of our common stock issuable upon exercise of warrants issued to the selling stockholder as the designee of Wainwright, as partial compensation for placement agent services by Wainwright in connection with the May 2018 Registered Direct Public Offering, the July 2018 Registered Direct Public Offering, the May 2018 Private Placement and the July 2018 Private Placement.

## PLAN OF DISTRIBUTION

The selling stockholders, including their transferees, donees, pledgees, assignees and successors-in-interest, may, from time to time, sell, transfer or otherwise dispose of any or all of the shares of common stock offered by this prospectus from time to time on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These dispositions may be at fixed prices, at market prices prevailing at the time of sale, at prices related to prevailing market price, at varying prices determined at the time of sale or at negotiated prices. The selling stockholders may use any one or more of the following methods when selling shares:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- broker-dealers may agree with a selling stockholder to sell a specified number of such shares at a stipulated price per share;
- a combination of any such methods of sale;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise; and
- any other method permitted pursuant to applicable law.

The selling stockholders may also sell shares under Rule 144 under the Securities Act, if available, rather than under this prospectus.

Broker-dealers engaged by the selling stockholders may arrange for other brokers-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the selling stockholders or, if any broker-dealer acts as agent for the purchaser of shares, from the purchaser in amounts to be negotiated. The selling stockholders do not expect these commissions and discounts relating to its sales of shares to exceed what is customary in the types of transactions involved.

The selling stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the common stock in the course of hedging the positions they assume. The selling stockholders may also sell shares of our common stock short and deliver these securities to close out its short positions, or loan or pledge the common stock to broker-dealers that in turn may sell these securities. The selling stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus, as supplemented or amended to reflect such transaction.

The selling stockholders and any broker-dealers or agents that are involved in selling the shares may be deemed to be “underwriters” within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the shares purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. The selling stockholders have informed us that they do not have any agreement or understanding, directly or indirectly, with any person to distribute the common stock.

Because each of the selling stockholders may be deemed to be an “underwriter” within the meaning of the Securities Act, they will be subject to the prospectus delivery requirements of the Securities Act. In addition, any securities covered by this prospectus which qualify for sale pursuant to Rule 144 under the Securities Act may be sold under Rule 144 rather than under this prospectus. The selling stockholders have advised us that they have not entered into any agreements, understandings or arrangements with any underwriter or broker-dealer regarding the sale of the resale shares.



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

Under applicable rules and regulations under the Exchange Act, any person engaged in the distribution of the shares may not simultaneously engage in market making activities with respect to our common stock for a period of two business days prior to the commencement of the distribution. In addition, the selling stockholders will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including Regulation M, which may limit the timing of purchases and sales of shares of our common stock by the selling stockholders or any other person. We will make copies of this prospectus available to the selling stockholders and have informed the selling stockholders of the need to deliver a copy of this prospectus to each purchaser at or prior to the time of the sale.

We will not receive any proceeds from the sale of the shares by the selling stockholders.

**Listing**

Our common stock is listed on the Nasdaq Capital Market under the symbol “FCSC.”

## LEGAL MATTERS

The validity of the shares of common stock offered hereby is being passed upon for us by Hogan Lovells US LLP.

## EXPERTS

The financial statements incorporated in this Prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2017 have been so incorporated in reliance on the report (which contains an explanatory paragraph relating to the Company's ability to continue as a going concern as described in Note 1 to the financial statements) of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

## INCORPORATION BY REFERENCE

The SEC allows us to "incorporate by reference" information into this prospectus, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The SEC file number for the documents incorporated by reference in this prospectus is 001-31564. The documents incorporated by reference into this prospectus contain important information that you should read about us.

The following documents are incorporated by reference into this document:

- our Annual Report on Form 10-K for the year ended December 31, 2017, filed with the SEC on March 19, 2018;
- our Quarterly Report on Form 10-Q for the quarter ended March 31, 2018, filed with the SEC on May 10, 2018;
- our Current Reports on Form 8-K (other than portions thereof furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits accompanying such reports that relate to such items) filed with the SEC on January 26, 2018, January 30, 2018, February 5, 2018, February 12, 2018, March 6, 2018, March 19, 2018, April 18, 2018, May 10, 2018, May 18, 2018, May 21, 2018, May 24, 2018, May 31, 2018, June 12, 2018, June 22, 2018 and July 5, 2018;
- our Definitive Proxy Statement on Schedule 14A filed with the SEC on April 2, 2018; and
- the description of our capital stock contained in Form 8-A filed with the SEC on August 28, 2014 (File No. 001-31564), including any amendment or report filed for the purpose of updating such description.

We also incorporate by reference into this prospectus all documents (other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items) that are filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of the initial registration statement of which this prospectus forms a part but prior to the termination of this offering. These documents include periodic reports, such as Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as well as proxy statements.

Any statement contained herein or in a document incorporated or deemed to be 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 any other subsequently filed document that is deemed to be incorporated by reference into this prospectus modifies or supersedes the statement.

You may request, orally or in writing, a copy of any or all of the documents incorporated herein by reference. These documents will be provided to you at no cost, by contacting: Fibrocell Science, Inc., Attn: Office of the Corporate Secretary, 405 Eagleview Blvd., Exton, PA 19341. In addition, copies of any or all of the documents incorporated herein by reference may be accessed at our website at <http://www.fibrocell.com>. The information on such website is not incorporated by reference and is not a part of this prospectus.

## WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to shares of our common stock. This prospectus, which constitutes part of the registration statement, does not include all of the information contained in the registration statement and the exhibits, schedules and amendments to the registration statement. For further information with respect to us and our common stock, we refer you to the registration statement and to the exhibits and schedules to the registration statement. Statements contained in this prospectus about the contents of any contract, agreement or other document are not necessarily complete, and, in each instance, we refer you to the copy of the contract, agreement or other document filed as an exhibit to the registration statement. Each of these statements is qualified in all respects by this reference. You should rely only on information contained in, or incorporated by reference into, this prospectus. We have not authorized anyone to provide you with information different from that contained in this prospectus or incorporated by reference in this prospectus.

You may read and copy the registration statement, of which this prospectus forms a part, at the SEC's public reference room, which is located at 100 F Street, N.E., Room 1580, Washington, DC 20549. You can request copies of the registration statement by writing to the SEC and paying a fee for the copying cost. Please call the SEC at 1-800-SEC-0330 for more information about the operation of the SEC's public reference room. In addition, the SEC maintains an Internet website, which is located at <http://www.sec.gov>, that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC. You may access the registration statement, of which this prospectus forms a part, at the SEC's Internet website. Our reports on Forms 10-K, 10-Q and 8-K, and amendments to those reports, are also available for download, free of charge, as soon as reasonably practicable after these reports are filed with the SEC, at our website at <http://www.fibrocell.com>. The content contained in, or that can be accessed through, our website is not a part of this prospectus.

## PART II

### INFORMATION NOT REQUIRED IN PROSPECTUS

#### Item 13. Other Expenses of Issuance and Distribution.

The following table sets forth the expenses to be incurred in connection with the offering described in this registration statement, all of which will be paid by the Registrant. All amounts are estimates except the Securities and Exchange Commission, or SEC, registration fee.

	<b>Amount</b>
Securities and Exchange Commission registration fee	\$ 979
Accounting fees and expenses	40,000
Legal fees and expenses	80,000
Miscellaneous	4,021
<b>Total Expenses</b>	<b>\$ 125,000</b>

#### Item 14. Indemnification of Directors and Officers.

Section 102 of the Delaware General Corporation Law, or the DGCL, permits a corporation to eliminate the personal liability of its directors or its stockholders for monetary damages for a breach of fiduciary duty as a director, except where the director breached his or her 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 that no director shall be personally liable to us or our stockholders for monetary damages for any breach of fiduciary duty as a director, notwithstanding any provision of law imposing such liability, except to the extent that the DGCL prohibits the elimination or limitation of liability of directors for breaches of fiduciary duty.

Section 145 of the DGCL provides that a corporation has the power to indemnify a director, officer, employee or agent of the corporation and certain other persons serving at the request of the corporation in related capacities against expenses (including attorneys' fees), judgments, fines and amounts paid in settlements actually and reasonably incurred by the person in connection with an action, suit or proceeding to which he or she is or is threatened to be made a party by reason of such position, if such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the corporation, and, in any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful, except that, in the case of actions brought by or in the right of the corporation, no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or other adjudicating court determines that, despite the adjudication of liability but in view of all of the circumstances of the case, such person is fairly and reasonably entitled to indemnification for such expenses which the Court of Chancery or such other court shall deem proper.

Our certificate of incorporation provides that we will indemnify each person who was or is a party or threatened to be made a 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 us), by reason of the fact that he or she is or was, or has agreed to become, our director or officer, or is or was serving, or has agreed to serve, at our request as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise (all such persons being referred to as an Indemnitee), or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding and any appeal therefrom if such Indemnitee acted in good faith and in a

manner he or she reasonably believed to be in, or not opposed to, our best interests, and, with respect to any criminal action or proceeding, he or she had no reasonable cause to believe his or her conduct was unlawful.

Our certificate of incorporation also provides that we will indemnify any Indemnitee who was or is a party to an action or suit by or in the right of us to procure a judgment in our favor by reason of the fact that the Indemnitee is or was, or has agreed to become, our director or officer, or is or was serving, or has agreed to serve, at our request as a director, officer, partner, employee or trustee or, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise, or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees) and, to the extent permitted by law, amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding, and any appeal therefrom, if the Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, our best interests, except that no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to us, unless a court determines that, despite such adjudication but in view of all of the circumstances, he or she is entitled to indemnification of such expenses. Notwithstanding the foregoing, to the extent that any Indemnitee has been successful, on the merits or otherwise, he or she will be indemnified by us against all expenses (including attorneys' fees) actually and reasonably incurred by him or her or on his or her behalf in connection therewith. If we do not assume the defense, expenses must be advanced to an Indemnitee under certain circumstances.

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

Insofar as the forgoing provisions permit indemnification of directors, executive officers, or persons controlling us for liability arising under the Securities Act of 1933, as amended, or the Securities Act, we have been informed that, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

#### **Item 15. Recent Sales of Unregistered Securities.**

##### **2016 Private Placement**

On September 7, 2016, we issued an aggregate of approximately \$18.1 million in principal of the Notes and the 2016 Private Placement Warrants to purchase an aggregate of 1,205,840 shares of common stock in a private placement to institutional and accredited investors.

The securities sold in this private placement were sold in reliance on the exemption from registration afforded by Section 4(a)(2) of the Securities Act and Rule 506(c) of Regulation D promulgated under the Securities Act. Each of the investors represented that it was an accredited investor, as such term is defined in Rule 501(a) of Regulation D under the Securities Act, and that it was acquiring the shares for investment only and not with a view towards, or for resale in connection with, the public sale or distribution thereof.

##### **Conversion of the Notes**

In June 2017, we issued 2,979 shares of unregistered common stock in connection with the conversion of an aggregate amount of \$51,609.79 of the Notes, with such amount representing \$50,000.00 in unpaid principal under the Notes and \$1,609.79 in accrued and unpaid interest under the Notes.

In July 2017 we issued 1,439 shares of unregistered common stock in connection with the conversion of an aggregate amount of \$25,876.87 of the Notes, with such amount representing \$25,000 in unpaid principal under the Notes and \$876.87 in accrued and unpaid interest under the Notes.

In August 2017 we issued 564 shares of unregistered common stock in connection with the conversion of an aggregate amount of \$10,379.04 of the Notes, with such amount representing \$10,000 in unpaid principal under the Notes and \$379.04 in accrued and unpaid interest under the Notes.

These shares of our common stock were issued in reliance on the exemption from registration provided by Section 3(a)(9) of the Securities Act, there was no additional consideration paid upon the conversion of the promissory notes and we did not receive any additional proceeds in connection with the issuance of the unregistered shares of common stock.

#### **May 2018 Private Placement**

On May 29, 2018, we entered into securities purchase agreements with the May 2018 Private Placement Purchasers pursuant to which, among other things, we issued and sold warrants to purchase an aggregate of 1,528,668 shares of our common stock in a private placement, at a price of \$0.125 for each warrant to purchase one share of our common stock. Each of the warrants is exercisable at an exercise price of \$2.86 per share and will expire on the 5.5 year anniversary of the date of issuance.

We received aggregate gross proceeds from the May 2018 Private Placement of approximately \$191,000 and paid aggregate placement agent fees of approximately \$14,000. Wainwright acted as the exclusive placement agent in connection with the May 2018 Private Placement. Pursuant to an engagement letter between us and Wainwright, we also agreed to issue to Wainwright (or its designees) warrants to purchase an aggregate of 142,676 shares of our common stock at an exercise price of \$3.679 per share. These warrants were issued as partial consideration to Wainwright for placement agent services it provided to us in connection with the May 2018 Registered Direct Public Offering and the May 2018 Private Placement.

The common stock purchase warrants (i) sold in the May 2018 Private Placement and (ii) and issued to Wainwright's designees in connection with the May 2018 Registered Direct Public Offering and the May 2018 Private Placement, were issued in reliance on the exemption from registration afforded by Section 4(a)(2) of the Securities Act and Rule 506(b) of Regulation D promulgated under the Securities Act. Each of the May 2018 Private Placement Purchasers, Wainwright and Wainwright's designees represented that it was an accredited investor, as such term is defined in Rule 501(a) of Regulation D under the Securities Act, and that it was acquiring the shares for investment only and not with a view towards, or for resale in connection with, the public sale or distribution thereof.

#### **July 2018 Private Placement**

On July 2, 2018, we entered into securities purchase agreements with the July 2018 Private Placement Purchasers pursuant to which, among other things, we issued and sold warrants to purchase an aggregate of 958,152 shares of our common stock in a private placement, at a price of \$0.125 for each warrant to purchase one share of our common stock. Each of the warrants is exercisable at an exercise price of \$2.70 per share and will expire on the 5.5 year anniversary of the date of issuance.

We received aggregate gross proceeds from the July 2018 Private Placement of approximately \$119,769 and paid aggregate placement agent fees of approximately \$8,400. Wainwright acted as the exclusive placement agent in connection with the July 2018 Private Placement. Pursuant to an engagement letter between us and Wainwright, we also agreed to issue to Wainwright (or its designees) warrants to purchase an aggregate of 103,186 shares of our common stock at an exercise price of \$3.464 per share. These warrants were issued as partial consideration to Wainwright for placement agent services it provided to us in connection with the July 2018 Registered Direct Public Offering and the July 2018 Private Placement.

The common stock purchase warrants (i) sold in the July 2018 Private Placement and (ii) and issued to Wainwright's designees in connection with the July 2018 Registered Direct Public Offering and the July 2018 Private Placement, were issued in reliance on the exemption from registration afforded by Section 4(a)(2) of the Securities Act and Rule 506(b) of Regulation D promulgated under the Securities Act. Each of the July 2018 Private Placement Purchasers, Wainwright and the Wainwright designees represented that it was an accredited investor, as such term is defined in Rule 501(a) of Regulation D under the

Securities Act, and that it was acquiring the shares for investment only and not with a view towards, or for resale in connection with, the public sale or distribution thereof.

**Item 16. Exhibits and Financial Statement Schedules.**

The exhibits to the registration statement are listed in the Exhibit Index attached hereto and incorporated by reference herein.

**Item 17. Undertakings.**

(a) The undersigned registrant hereby undertakes that:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement;

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

(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 pursuant to Rule 424(b) as part of the registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. *Provided, however,* that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

(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 section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a

new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

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



## EXHIBIT INDEX

EXHIBIT NO.	IDENTIFICATION OF EXHIBIT
2.1	<a href="#"><u>Debtors' First Amended Joint Plan of Reorganization dated July 30, 2009 and Disclosure Statement (incorporated by reference to as Exhibit 10.2 to our Quarterly Report on Form 10-Q for the quarter ended June 30, 2009, filed August 12, 2009 and as Exhibit 99.1 to our Form 8-K, filed September 2, 2009)</u></a>
3.1	<a href="#"><u>Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K, filed December 13, 2012)</u></a>
3.2	<a href="#"><u>Certificate of Amendment of the Restated Certificate of Incorporation filed April 26, 2013 (incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K, filed April 29, 2013)</u></a>
3.3	<a href="#"><u>Certificate of Amendment to the Company's Restated Certificate of Incorporation, as amended, filed July 19, 2013 (incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K filed July 22, 2013)</u></a>
3.4	<a href="#"><u>Certificate of Amendment of the Restated Certificate of Incorporation filed July 12, 2016 (incorporated by reference to Exhibit 3.1 to our Quarterly Report on Form 10-Q for the quarter ended June 30, 2016, filed August 4, 2016)</u></a>
3.5	<a href="#"><u>Fourth Amended and Restated Bylaws (incorporated by reference to Exhibit 3.1 to our Quarterly Report on Form 10-Q for the quarter ended March 31, 2015, filed May 8, 2015)</u></a>
3.6	<a href="#"><u>Amendment to Fourth Amended and Restated Bylaws (incorporated by reference to Exhibit 3.2 to our Quarterly Report on Form 10-Q for the quarter ended March 31, 2015, filed May 8, 2015)</u></a>
3.7	<a href="#"><u>Certificate of Designation of Preferences, Rights and Limitations of Series A Convertible Preferred Stock (incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K, filed March 8, 2017)</u></a>
3.8	<a href="#"><u>Certificate of Amendment of the Restated Certificate of Incorporation of the Company (incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K, filed March 10, 2017)</u></a>
3.9	<a href="#"><u>Certificate of Amendment of the Restated Certificate of Incorporation of the Company (incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K, filed May 24, 2018)</u></a>
4.1	<a href="#"><u>Form of Common Stock Certificate (incorporated by reference to Exhibit 4.1 to our Quarterly Report on Form 10-Q for the quarter ended September 30, 2009, filed November 23, 2009)</u></a>
4.2	<a href="#"><u>Form of Common Stock Purchase Warrant used for the Series E Preferred Stock offering (incorporated by reference to Exhibit 4.1 to our Current Report on Form 8-K, filed May 15, 2012)</u></a>
4.3	<a href="#"><u>Form of Amended and Restated Common Stock Purchase Warrant issued to our prior 12.5% Note holders (incorporated by reference to Exhibit 10.5 to our Current Report on Form 8-K, filed October 9, 2012)</u></a>
4.4	<a href="#"><u>Form of Convertible Promissory Note (incorporated by reference to Exhibit 4.1 to our Current Report on Form 8-K, filed September 8, 2016)</u></a>
4.5	<a href="#"><u>Form of Common Stock Purchase Warrant (incorporated by reference to Exhibit 4.2 to our Current Report on Form 8-K, filed September 8, 2016)</u></a>
4.6	<a href="#"><u>Form of Common Stock Purchase Warrant (incorporated by reference to Exhibit 4.1 to our Current Report on Form 8-K, filed March 8, 2017)</u></a>
4.7	<a href="#"><u>Form of Underwriter's Common Stock Purchase Warrant (incorporated by reference to Exhibit 4.7 to our Registration Statement on Form S-1/A, filed December 6, 2017 (File No. 333-221375))</u></a>
4.8	<a href="#"><u>Form of Common Stock Purchase Warrant (incorporated by reference to Exhibit 4.8 to our Registration Statement on Form S-1/A, filed December 6, 2017 (File No. 333-221375))</u></a>
4.9	<a href="#"><u>Form of Common Stock Purchase Warrant (incorporated by reference to Exhibit 4.1 to our Current Report on Form 8-K, filed May 31, 2018)</u></a>
4.10	<a href="#"><u>Form of Placement Agent Common Stock Purchase Warrant (incorporated by reference to Exhibit 4.2 to our Current Report on Form 8-K, filed May 31, 2018)</u></a>
4.11	<a href="#"><u>Form of Common Stock Purchase Warrant (incorporated by reference to Exhibit 4.1 to our Current Report on Form 8-K, filed July 5, 2018)</u></a>
4.12	<a href="#"><u>Form of Placement Agent Common Stock Purchase Warrant (incorporated by reference to Exhibit 4.2 to our Current Report on Form 8-K, filed July 5, 2018)</u></a>
*5.1	<a href="#"><u>Opinion of Hogan Lovells US LLP</u></a>

- 10.1 [Lease Agreement between Isolagen, Inc. and The Hankin Group dated April 7, 2005 \(incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K, filed April 12, 2005\)](#)
- 10.2 [Amendment to Lease Agreement between Fibrocell Science, Inc. and The Hankin Group dated February 17, 2012 \(incorporated by reference to Exhibit 10.17 to our Annual Report on Form 10-K for the fiscal year ended December 31, 2011, filed March 30, 2012\)](#)
- 10.3 [Securities Purchase Agreement dated October 5, 2012 \(incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K, filed October 9, 2012\)](#)
- 10.4 [Registration Rights Agreement dated October 5, 2012 \(incorporated by reference to Exhibit 10.2 to our Current Report on Form 8-K, filed October 9, 2012\)](#)
- 10.5 [Stock Issuance Agreement dated October 5, 2012 between the Company and Intrexon Corporation \(incorporated by reference to Exhibit 10.3 to our Current Report on Form 8-K, filed October 9, 2012\)](#)
- 10.6 [Amendment and Conversion Agreement dated October 5, 2012 between the Company and the Holders of the Company's Notes \(incorporated by reference to Exhibit 10.4 to our Current Report on Form 8-K, filed October 9, 2012\)](#)
- 10.7 [Exclusive Channel Collaboration Agreement between Precigen, Inc. and Fibrocell Science, Inc. \(incorporated by reference to Exhibit 10.21 to our Annual Report on Form 10-K for the fiscal year ended December 31, 2012, filed April 1, 2013\)](#)
- 10.8 [First Amendment to Exclusive Channel Collaboration Agreement between the Company and Precigen, Inc. dated June 28, 2013 \(incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K, filed July 1, 2013\)](#)
- 10.9 [Supplemental Stock Issuance Agreement between the Company and Intrexon Corporation dated June 28, 2013 \(incorporated by reference to Exhibit 10.2 to our Current Report on Form 8-K, filed July 1, 2013\)](#)
- 10.10 [Second Amendment to Exclusive Channel Collaboration Agreement between the Company and Precigen, Inc. dated January 10, 2014 \(incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K, filed January 13, 2014\)](#)
- 10.11 [Supplemental Stock Issuance Agreement between the Company and Intrexon Corporation dated January 10, 2014 \(incorporated by reference to Exhibit 10.2 to our Current Report on Form 8-K, filed January 13, 2014\)](#)
- 10.12 [Letter Agreement to Exclusive Channel Collaboration Agreement, as amended, between Fibrocell Science, Inc. and Precigen, Inc. dated September 29, 2015 \(incorporated by reference to Exhibit 10.2 to our Quarterly Report on Form 10-Q for the quarter ended September 30, 2015, filed November 5, 2015\)](#)
- 10.13 ◆ [Exclusive Channel Collaboration Agreement, dated December 31, 2015, between Fibrocell Science, Inc. and Precigen, Inc. \(incorporated by reference to Exhibit 99.1 to our Current Report on Form 8-K, filed January 4, 2016\)](#)
- 10.14 † [Fibrocell Science, Inc. 2009 Equity Incentive Plan, as amended and restated as of March 11, 2017 \(incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K, filed June 20, 2014\)](#)
- 10.15 [Form of Nonqualified Stock Option Agreement for Employee Grants under Fibrocell Science, Inc. 2009 Equity Incentive Plan \(incorporated by reference to Exhibit 10.2 to our Quarterly Report on Form 10-Q for the quarter ended March 31, 2015, filed May 8, 2015\)](#)
- 10.16 [Form of Nonqualified Stock Option Agreement for Director Grants under Fibrocell Science, Inc. 2009 Equity Incentive Plan \(incorporated by reference to Exhibit 10.3 to our Quarterly Report on Form 10-Q for the quarter ended March 31, 2015, filed May 8, 2015\)](#)
- 10.17 [Form of Incentive Stock Option Agreement for Employee Grants under Fibrocell Science, Inc. 2009 Equity Incentive Plan \(incorporated by reference to Exhibit 10.4 to our Quarterly Report on Form 10-Q for the quarter ended March 31, 2015, filed May 8, 2015\)](#)
- 10.18 † [Employment Agreement between the Company and Michael F. Marino dated June 1, 2015 \(incorporated by reference to Exhibit 10.1 to our Form 10-Q for the quarter ended June 30, 2015, filed August 7, 2015\)](#)
- 10.19 † [Employment Agreement between the Company and John Maslowski dated September 14, 2015 \(incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K, filed September 16, 2015\)](#)
- 10.20 † [Offer Letter by and between the Company and John M. Maslowski dated December 18, 2016 \(incorporated by reference to Exhibit 10.2 to our Current Report on Form 8-K, filed December 19, 2016\)](#)
- 10.21 † [Separation Agreement and General Release by and between the Company and Michael F. Marino dated January 25, 2017 \(incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K, filed January 26, 2017\)](#)
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- 10.22 † [Separation Agreement and General Release by and between the Company and Kimberly M. Smith dated March 3, 2017 \(incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K, filed March 3, 2017\)](#)
- 10.23 [Agreement for the Purchase and Sale of Convertible Debt and Common Stock Warrants dated August 9, 2016 \(incorporated by reference to Exhibit 10.1 to our Quarterly Report on Form 10-Q for the quarter ended September 30, 2016, filed on November 3, 2016\)](#)
- 10.24 [Form of Registration Rights Agreement \(incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K, filed on September 8, 2016\)](#)
- 10.25 [Controlled Equity Offering Sales Agreement by and between the Company and Cantor Fitzgerald & Co. dated January 21, 2016 \(incorporated by reference to Exhibit 10.1 of our Current Report on Form 8-K, filed January 21, 2016\)](#)
- 10.26 [Form of Securities Purchase Agreement by and between the Company and other signatories thereto dated March 7, 2017 \(incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K, filed on March 8, 2017\)](#)
- 10.27 [Engagement Letter, dated May 8, 2017, by and between the Company and AC Lordi \(incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K, filed May 9, 2017\)](#)
- 10.28 [Form of Securities Purchase Agreement \(incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K filed on May 31, 2018 \(File No. 001-31564\)\)](#)
- 10.29 [Form of Securities Purchase Agreement \(incorporated by reference to Exhibit 10.1 to our Current Report on form 8-K filed on July 5, 2018 \(File No. 001-31564\)\)](#)
- 21 [Subsidiaries of Fibrocell Science, Inc. \(incorporated by reference to Exhibit 21.1 to our Annual Report on Form 10-K for the fiscal year ended December 31, 2017, filed March 19, 2018 \(File No. 001-31564\)\)](#)
- \*23.1 [Consent of PricewaterhouseCoopers LLP](#)
- \*23.2 [Consent of Hogan Lovells US LLP \(included in Exhibit 5.1\)](#)
- \*24.1 [Power of attorney \(included on the signature page of this registration statement\)](#)

\* Filed herewith.

† Indicates management contract or compensatory plan or arrangement.

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

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## SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized in the city of Exton, Commonwealth of Pennsylvania, on this 27th day of July, 2018.

### FIBROCELL SCIENCE, INC.

By: /s/ John M. Maslowski  
Name: John M. Maslowski  
Title: President and Chief Executive Officer

### POWER OF ATTORNEY

KNOW ALL BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints John M. Maslowski and Sean D. Buckley as his or her true and lawful attorney-in-fact and agent, with the full power of substitution, for him or her and in his or her name, place or stead, in any and all capacities, to sign any and all amendments to this registration statement (including post-effective amendments), and any other registration statements for the same offering pursuant to Rule 462(b) of the Securities Act of 1933, as amended, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

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

<b>Signature</b>	<b>Title</b>	<b>Date</b>
<u>/s/ John M. Maslowski</u> <b>John M. Maslowski</b>	Director, President and Chief Executive Officer (Principal Executive Officer, Principal Financial Officer and Principal Accounting Officer)	July 27, 2018
<u>/s/ Douglas J. Swirsky</u> <b>Douglas J. Swirsky</b>	Chairman of the Board	July 27, 2018
<u>/s/ Kelvin Moore</u> <b>Kelvin Moore</b>	Director	July 27, 2018
<u>/s/ Marc Mazur</u> <b>Marc Mazur</b>	Director	July 27, 2018
<u>/s/ Julian Kirk</u> <b>Julian Kirk</b>	Director	July 27, 2018
<u>/s/ Marcus Smith</u> <b>Marcus Smith</b>	Director	July 27, 2018
<u>/s/ Christine St. Clare</u> <b>Christine St. Clare</b>	Director	July 27, 2018

Exhibit 5.1



Hogan Lovells US LLP  
1735 Market Street, Floor 23  
Philadelphia, PA 19103  
T +1 267 675 4600  
F +1 267 675 4601  
www.hoganlovells.com

July 27, 2018

Board of Directors  
Fibrocell Science, Inc.  
405 Eagleview Boulevard  
Exton, Pennsylvania 19341

Ladies and Gentlemen:

We are acting as counsel to Fibrocell Science, Inc., a Delaware corporation (the "Company"), in connection with its registration statement on Form S-1 (the "Registration Statement"), filed with the Securities and Exchange Commission under the Securities Act of 1933, as amended (the "Act"), relating to the resale or other disposition, from time to time, by the selling stockholders listed in the Registration Statement (the "Selling Stockholders"), including their transferees, pledgees, donees or successors, of up to 2,732,682 shares of the common stock, par value \$0.001 per share of the Company (the "Warrant Shares"), issuable upon exercise of warrants (the "Warrants") issued by the Company to the Selling Stockholders on May 31, 2018 and July 5, 2018, as described in the prospectus that forms a part of the Registration Statement (the "Prospectus"). This opinion letter is furnished to you at your request to enable you to fulfill the requirements of Item 601(b)(5) of Regulation S-K, 17 C.F.R. § 229.601(b)(5), in connection with the Registration Statement.

For purposes of this opinion letter, we have examined copies of such agreements, instruments and documents as we have deemed an appropriate basis on which to render the opinions hereinafter expressed, including the Warrants. In our examination of the aforesaid documents, we have assumed the genuineness of all signatures, the legal capacity of all natural persons, the accuracy and completeness of all documents submitted to us, the authenticity of all original documents, and the conformity to authentic original documents of all documents submitted to us as copies (including pdfs). As to all matters of fact, we have relied on the representations and statements of fact made in the documents so reviewed, and we have not independently established the facts so relied on. This opinion letter is given, and all statements herein are made, in the context of the foregoing.

This opinion letter is based as to matters of law solely on the Delaware General Corporation Law, as amended. We express no opinion herein as to any other statutes, rules or regulations.

Based upon, subject to and limited by the foregoing, we are of the opinion that, as of the date hereof, the Warrant Shares have been duly authorized by all necessary corporate action on the part of the Company and, following (i) the exercise of the Warrants in accordance with their terms and (ii)

Hogan Lovells US LLP is a limited liability partnership registered in the District of Columbia. "Hogan Lovells" is an international legal practice that includes Hogan Lovells US LLP and Hogan Lovells International LLP, with offices in: Alicante Amsterdam Baltimore Beijing Birmingham Boston Brussels Colorado Springs Denver Dubai Dusseldorf Frankfurt Hamburg Hanoi Ho Chi Minh City Hong Kong Houston Johannesburg London Los Angeles Luxembourg Madrid Mexico City Miami Milan Minneapolis Monterey Moscow Munich New York Northern Virginia Paris Perth Philadelphia Rio de Janeiro Rome San Francisco São Paulo Shanghai Silicon Valley Singapore Sydney Tokyo Warsaw Washington DC Associated offices: Budapest Jakarta Shanghai FTZ Ulaanbaatar Zagreb. Business Service Centers: Johannesburg Louisville. For more information see www.hoganlovells.com

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receipt by the Company of the consideration for the Warrant Shares specified in the Warrants, the Warrant Shares will be validly issued, fully paid, and nonassessable.

This opinion letter has been prepared for use in connection with the Registration Statement. We assume no obligation to advise of any changes in the foregoing subsequent to the effective date of the Registration Statement.

We hereby consent to the filing of this opinion letter as Exhibit 5.1 to the Registration Statement and to the reference to this firm under the caption "Legal Matters" in the Prospectus. In giving this consent, we do not thereby admit that we are an "expert" within the meaning of the Act.

Very truly yours,

/s/ HOGAN LOVELLS US LLP

HOGAN LOVELLS US LLP



CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-1 of Fibrocell Science, Inc. of our report dated March 19, 2018 relating to the financial statements, which appears in Fibrocell Science, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2017. We also consent to the reference to us under the heading "Experts" in such Registration Statement.

/s/ PricewaterhouseCoopers LLP  
Philadelphia, PA  
July 27, 2018

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