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Registration No. 333-221375

PROSPECTUS



Fibrocell Science, Inc.

**7,714,156 Units (each Unit contains one Share of Common Stock and one Common Warrant to purchase one Share of Common Stock)**

**5,922,208 Pre-funded Units (each Pre-funded Unit contains one Pre-funded Warrant to Purchase one Share of Common Stock and one Common Warrant to purchase one Share of Common Stock)**

**(5,922,208 Shares of Common Stock Underlying the Pre-funded Warrants) and  
(13,636,364 Shares of Common Stock Underlying the Common Warrants)**

We are offering 7,714,156 units (each unit consisting of one share of our common stock and one common warrant to purchase one share of our common stock). Each common warrant contained in a unit has an exercise price of \$0.77 per share. The common warrants contained in the units will be exercisable immediately and will expire five years from the date of issuance. We are also offering the shares of our common stock that are issuable from time to time upon exercise of the common warrants contained in the units.

We are also offering to each purchaser whose purchase of units in this offering would otherwise result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% of our outstanding common stock immediately following the consummation of this offering, 5,922,208 pre-funded units (each pre-funded unit consisting of one pre-funded warrant to purchase one share of our common stock and one common warrant to purchase one share of our common stock) in lieu of units that would otherwise result in the purchaser's beneficial ownership exceeding 4.99% of our outstanding common stock (or at the election of the purchaser, 9.99%). Each pre-funded warrant contained in a pre-funded unit will be exercisable for one share of our common stock. The purchase price of each pre-funded unit will equal the price per unit being sold to the public in this offering minus \$0.01, and the exercise price of each pre-funded warrant included in the pre-funded unit will be \$0.01 per share. This offering also relates to the shares of common stock issuable upon exercise of any pre-funded warrants contained in the pre-funded units sold in this offering. Each common warrant contained in a pre-funded unit has an exercise price of \$0.77 per share. The common warrants contained in the pre-funded units will be exercisable immediately and will expire five years from the date of issuance. We are also offering the shares of our common stock that are issuable from time to time upon exercise of the common warrants contained in the pre-funded units.

Our common stock is listed on the Nasdaq Capital Market under the symbol "FCSC." The last reported sale price for our common stock on the Nasdaq Capital Market on December 6, 2017 was \$1.00 per share. We do not intend to apply for listing of the pre-funded warrants or common warrants on any securities exchange or other nationally recognized trading system. There is no established public trading market for the pre-funded warrants or common warrants, and we do not expect a market to develop.

The units and the pre-funded units will not be issued or certificated. The shares of common stock or pre-funded warrants, as the case may be, and the common warrants can only be purchased together in this offering but the securities contained in the units or pre-funded units will be issued separately.

You should rely only on the information contained herein or incorporated by reference in this prospectus. We have not authorized any other person to provide you with different information.

**Investing in our common stock involves a high degree of risk. See "Risk Factors" beginning on page 10 of this prospectus and under similar headings in the documents incorporated by reference into this prospectus.**

	Per Unit	Per Pre-funded Unit	Total
Public offering price	\$0.77	\$0.76	\$10,440,778
Underwriting discounts and commissions(1)	\$0.0539	\$0.0539	\$588,000
Proceeds, before expenses, to us(2)	\$0.7161	\$0.7061	\$9,852,778

(1) We have agreed to reimburse the underwriter for certain of its expenses. See "Underwriting" for a description of the compensation to be received by the underwriter. In addition, we and the underwriter have agreed that the underwriter will not receive any underwriting discount on the 2,727,273 units that entities affiliated with Randal J. Kirk have agreed to purchase in this offering, which is reflected in the "Total" column of the table.

(2) Excludes potential proceeds from the exercise of the common warrants or pre-funded warrants being offered pursuant to this prospectus.

We have granted the underwriter the option to purchase up to 2,045,454 additional shares of common stock at a purchase price of \$0.76 per share and/or common warrants to purchase up to an aggregate of 2,045,454 shares of common stock at a purchase price of \$0.01 per common warrant with an exercise price of \$0.77 per share, less the underwriting discounts and commissions. The underwriter may exercise its option at any time within 30 days from the date of this prospectus. If the underwriter exercises the option in full, the total underwriting discounts and commissions payable by us will be \$0.7 million, and the total proceeds to us, before expenses, will be \$11.3 million, excluding potential proceeds from the exercise of the common warrants included in the underwriter's option to purchase and giving effect to the sale of 2,727,273 units to entities affiliated with Randal J. Kirk in this offering, for which the underwriter will not receive any underwriting discount.

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 underwriter expects to deliver the securities to purchasers on December 11, 2017.

*Sole Book-Running Manager*

**H.C. Wainwright & Co.**

The date of this prospectus is December 7, 2017.

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You should read this prospectus, including the information incorporated by reference herein, and any related free writing prospectus that we have authorized for use in connection with this offering.

You should rely only on the information that we have included or incorporated by reference in this prospectus and any related free writing prospectus that we may authorize to be provided to you. We have not authorized any underwriter, dealer or other person to give any information or to make any representation other than those contained or incorporated by reference in this prospectus or any related free writing prospectus that we may authorize to be provided to you. You must not rely upon any information or representation not contained or incorporated by reference in this prospectus or any related free writing prospectus. This prospectus and any related free writing prospectus do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the registered securities to which they relate, nor do this prospectus or any related free writing prospectus constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction.

You should not assume that the information contained in this prospectus or any related free writing prospectus is accurate on any date subsequent to the date set forth on the front of the document or that any information we have incorporated by reference herein or therein is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus or any related free writing prospectus is delivered, or securities are sold, on a later date.

This prospectus contains or incorporates by reference summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Copies of some of the documents referred to herein have been filed or have been incorporated by reference as exhibits to the registration statement of which this prospectus forms a part, and you may obtain copies of those documents as described in this prospectus under the headings "Incorporation by Reference" and "Where You Can Find More Information."

## PROSPECTUS SUMMARY



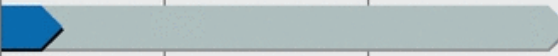
*This summary highlights information contained in other parts of this prospectus and in the documents we incorporate by reference. Because it is only a summary, it does not contain all of the information that you should consider before investing in our securities and it is qualified in its entirety by, 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 our securities. Unless the context requires otherwise, references in this prospectus to "Fibrocell," "we," "us" and "our" refer to Fibrocell Science, Inc. and its subsidiaries.*

### 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, 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.

Our current pipeline consists of the following product candidates which we are developing in collaboration with Intrexon Corporation, or Intrexon:

Program	Condition	Target	Research	Pre-Clinical Development	Human Clinical Trials
FCX-007	Recessive Dystrophic Epidermolysis Bullosa (RDEB)	Type VII Collagen			
FCX-013	Moderate to Severe Localized Scleroderma	MMP-1			
Research	Arthritis and Related Conditions	TBD			

Our most advanced product candidate, FCX-007, is currently in a Phase 1/2 trial for the treatment of recessive dystrophic epidermolysis bullosa, or RDEB. We are also in pre-clinical development of

FCX-013, our product candidate for the treatment of moderate to severe localized scleroderma. In addition, we have a third program in the research phase for the treatment of arthritis and related conditions. See further discussion of our gene-therapy product candidates under the heading "Development Programs" below.

#### **Intrexon Collaborations**

We collaborate with Intrexon, a related party, through two distinct exclusive channel collaboration agreements, consisting of the Exclusive Channel Collaboration Agreement entered into in October 2012, as amended, or the 2012 ECC, and the Exclusive Channel Collaboration Agreement entered into in December 2015, or the 2015 ECC. Pursuant to these agreements, we engage Intrexon for support services for the research and development of product candidates covered under the respective agreements and reimburse Intrexon for its cost for time and materials for such work. In addition, we are required to pay Intrexon quarterly cash royalties on all products developed under the 2012 ECC in an amount equal to 7% of aggregate quarterly net sales up to \$25 million, plus 14% on aggregate quarterly net sales greater than \$25 million. Under the 2015 ECC, we are required to pay Intrexon development milestones of up to \$30 million for the first product developed under the 2015 ECC (and development milestones of up to \$55 million for each subsequent product developed under the 2015 ECC) and commercialization milestones of up to \$22.5 million for each product developed, a low double-digit royalty on our net sales of such products and half of any sublicensing revenues we receive from third parties in consideration for sublicenses granted by us with respect to such products but only to the extent such sublicensing revenues are not included in net sales subject to royalties.

We are developing FCX-007 and FCX-013 under the 2012 ECC and we are in the research phase for a gene-therapy treatment for arthritis and related conditions under the 2015 ECC.

#### **Development Programs**

##### ***FCX-007 for Recessive Dystrophic Epidermolysis Bullosa***

RDEB is the most severe form of dystrophic epidermolysis bullosa, or DEB, a congenital, progressive, devastatingly painful and debilitating genetic disorder that often leads to death. RDEB is caused by a mutation of the *COL7A1* gene, the gene which encodes for type VII collagen, or COL7, a protein that forms anchoring fibrils. Anchoring fibrils hold together the layers of skin, and without them, skin layers separate causing severe blistering, open wounds and scarring in response to friction, including normal daily activities like rubbing or scratching. Children who inherit this condition are often called "butterfly children" because their skin can be as fragile as a butterfly's wings. We estimate that there are approximately 1,100 - 2,500 RDEB patients in the U.S. Currently, treatments for RDEB address only the sequelae, including daily bandaging (which can cost a patient in excess of \$10,000 per month), hydrogel dressings, antibiotics, feeding tubes and surgeries.

Our lead product candidate, FCX-007, is in clinical development for the treatment of RDEB. FCX-007 is a genetically-modified autologous fibroblast that encodes the gene for COL7 for localized treatment of RDEB and is being developed in collaboration with Intrexon. By genetically modifying autologous fibroblasts *ex vivo* to produce COL7, culturing them and then treating blisters and wounds locally via injection, FCX-007 offers the potential to address the underlying cause of the disease by providing high levels of COL7 directly to the affected areas, thereby avoiding systemic treatment. In addition, we believe the autologous nature of the cells, localized delivery, use of an integrative vector and the low turnover rate of the protein will contribute to long-term persistence of the COL7 produced by FCX-007.

FCX-007 has received Orphan Drug Designation for the treatment of DEB, including RDEB, Rare Pediatric Disease Designation for the treatment of RDEB and Fast Track Designation for the treatment of RDEB from the United States Food and Drug Administration, or FDA.

*Phase 1/2 Clinical Trial of FCX-007 for RDEB*

The primary objective of this open-label trial is to evaluate the safety of FCX-007 in RDEB patients. Additionally, the trial will assess (i) the mechanism of action of FCX-007 through the evaluation of COL7 expression and the presence of anchoring fibrils and (ii) the efficacy of FCX-007 through intra-subject paired analysis of target wound area by comparing FCX-007 treated wounds to untreated wounds in Phase 1 and to wounds administered with sterile saline in Phase 2 through the evaluation of digital imaging of wounds. Twelve patients are targeted to be treated with FCX-007 consisting of six adults in the Phase 1 portion of the trial and six patients in the Phase 2 portion of the trial. Prior to conducting clinical trials on pediatric patients, we are required to obtain allowance from the FDA by submitting evidence of FCX-007 safety and benefit in adult patients and data from its completed pre-clinical toxicology study.

We are actively recruiting adult patients to complete enrollment in the Phase 1 portion of the trial and currently have four of the six adult patients enrolled. The patients in the Phase 1 portion of the trial are divided into two equal cohorts in order to evaluate the safety of FCX-007 in each population type. One cohort is comprised of patients who have positive expression of the non-collagenous portion of the COL7 protein (NC1+) and the other cohort is comprised of patients who do not express the non-collagenous portion of the protein (NC1-). Patients enrolled to date fulfilled the NC1+ cohort and also provided the first patient for the NC1- cohort. Two more patients are required for the NC1- cohort to complete enrollment in the Phase 1 portion of the trial. The clinical trial protocol is designed to allow a cohort to move into the Phase 2 portion of the trial even if the other cohort is still enrolling or in the follow-up evaluation period.

The first adult patient in the NC1+ cohort in the Phase 1 portion of the Phase 1/2 clinical trial was dosed in the first quarter of 2017. In April 2017, the Data Safety Monitoring Board, or DSMB, recommended continuation of the Phase 1/2 clinical trial of FCX-007 for the treatment of RDEB, following a planned review of safety data from the first patient treated in the Phase 1 portion of the trial. No product-related adverse events were reported. Based on the DSMB's recommendation, the remaining two patients in the NC1+ cohort in the Phase 1 portion of the trial were dosed in June 2017.

In September 2017, we reported interim results from the Phase 1 portion of the Phase 1/2 clinical trial of FCX-007. Three adult NC1+ patients were dosed with a single intradermal injection session of FCX-007 in the margins of and across targeted wounds, as well as in separate intact skin sites. Five wounds were treated on the three subjects, ranging in size from 4.4cm<sup>2</sup> to 13.1cm<sup>2</sup>. Data from these patients show FCX-007 was well-tolerated through 12 weeks post-administration. There were no serious adverse events and no product related adverse events reported.

The targeted wounds were evaluated during a monitoring period prior to dosing and were observed to be open for up to eight months. Compared to the baseline measurement collected at Day 0 before the single intradermal injection session of FCX-007, at four weeks post-administration 100% (5/5) of wounds were □ 75% healed. At 12 weeks post-administration, 80% (4/5) of wounds were □ 70% healed. The wound that was < 70% healed from the twelve week data set was biopsied by the investigator in the middle of the wound bed rather than on the wound edge, which we believe may have contributed to the wound's instability. We plan to continue to monitor this and other wounds throughout the follow-up visits.

Various pharmacology signals for vector DNA, COL7 mRNA, or COL7 protein expression were detected throughout the data set in each patient for one or more assays up to 12 weeks post-administration (qPCR, electron microscopy or immunofluorescence). Anchoring fibrils have not been detected to date, whereas expressed COL7 mRNA and COL7 protein have been confirmed in multiple patient samples including one that detected linear expression of COL7 at the basement

membrane zone. The DSMB for the trial reviewed the interim data and concluded that safety and potential benefit were established, and allowed continuation of enrollment and dosing.

We plan to use the interim data from the Phase 1 portion of the Phase 1/2 clinical trial to support a future filing for Regenerative Medicine Advanced Therapy or Breakthrough Therapy Designation for FCX-007. We also believe the interim data will support an FDA filing to obtain allowance for pediatric enrollment in the Phase 2 portion of the Phase 1/2 clinical trial, which we expect to initiate in the first quarter of 2018. The FDA previously required us to file safety and potential benefit data from adults in the Phase 1 portion of the trial for review prior to enrolling pediatric patients.

With data from the first three patients meeting the primary trial objective of safety, we plan to increase expression and dosing of FCX-007. We expect to perform additional dosing of adult patients in the Phase 1 portion of the trial in the fourth quarter of 2017. In addition, we enrolled an RDEB adult as the first patient of the Phase 2 portion of the Phase 1/2 clinical trial of FCX-007, and we expect to initiate the Phase 2 portion of the trial, through the additional dosing of adult patients, in the fourth quarter of 2017. Furthermore, subject to FDA allowance, we expect to initiate enrollment of pediatric patients in the Phase 2 portion of the trial in the first quarter of 2018.

We have designated our existing, current good manufacturing practices, or cGMP, cell therapy manufacturing facility in Exton, PA as the production site for FCX-007 after incorporation into FCX-007's IND. The facility will be used for the remaining clinical and future commercial manufacture of FCX-007, with capacity to serve the U.S. market for RDEB. The approximately 13,000 square foot facility previously supported our commercial autologous fibroblast manufacturing, with multiple FDA inspections conducted at the site. The facility includes cleanroom cell therapy manufacturing, quality control testing, cryogenic storage, shipping/receiving and warehousing space.

#### ***FCX-013 for Moderate to Severe Localized Scleroderma***

Localized scleroderma is a chronic autoimmune skin disorder that manifests as excess production of extracellular matrix, specifically collagen, resulting in thickening of the skin and connective tissue. Localized scleroderma encompasses several subtypes which are classified based on the depth and pattern of the lesion(s). The moderate to severe forms of the disorder include linear, generalized, deep, pansclerotic and mixed morphea subtypes. Linear scleroderma is the most common subtype in juvenile localized scleroderma and is associated with high morbidity and lifelong disability. Linear lesions of the limbs may cause limb length discrepancy due to impaired growth, muscle atrophy and joint contractures-orthopedic complications are reported in 30% to 50% of patients. Current treatments for localized scleroderma, which include systemic or topical corticosteroids, UVA light therapy and physical therapy, only address the symptoms of the disorder. We estimate that there are approximately 90,000 patients in the U.S. considered to have moderate to severe localized scleroderma.

Our second gene-therapy product candidate, FCX-013, is in pre-clinical development for the treatment of moderate to severe localized scleroderma. FCX-013 is an autologous fibroblast genetically-modified using lentivirus and encoded for matrix metalloproteinase 1 (MMP-1), the protein responsible for breaking down collagen. FCX-013 incorporates Intrexon's proprietary RheoSwitch Therapeutic System®, or RTS®, a biologic switch activated by an orally administered compound to control protein expression at the site of localized scleroderma lesions. FCX-013 is designed to be injected under the skin at the location of the fibrotic lesions where the genetically-modified fibroblast cells will produce MMP-1 to break down excess collagen accumulation. With the FCX-013 therapy, the patient will take an oral compound to facilitate protein expression. Once the fibrosis is resolved, the patient will stop taking the oral compound which will halt further MMP-1 production.

We have successfully completed a proof-of-concept study for FCX-013 in which the primary objective was to determine whether FCX-013 had the potential to reduce dermal thickness in fibrotic tissue. In this study, FCX-013 was evaluated in a bleomycin-induced scleroderma model utilizing severe

combined immunodeficiency, or SCID, mice. Data from the study demonstrated that FCX-013 reduced dermal thickness of fibrotic tissue to levels similar to that of the non-treated control and further reduced the thickness of the sub-dermal muscle layer. Based upon these data and the FDA's feedback to our pre-Investigational New Drug application, or IND, briefing package, we advanced FCX-013 into a pre-clinical dose-ranging study which has been completed. We expect to complete a toxicology/biodistribution study and submit an IND application for FCX-013 to the FDA in the fourth quarter of 2017. In addition, we expect to initiate a human safety clinical trial for FCX-013 in 2018.

FCX-013 has received Orphan Drug Designation from the FDA for the treatment of localized scleroderma and Rare Pediatric Disease Designation for moderate to severe localized scleroderma.

#### ***New Gene Therapy Program for Arthritis and Related Conditions***

Arthritis is a broad term that covers a group of more than 100 different types of diseases that affect the joints, as well as connective tissues and organs, including the skin. According to the Centers for Disease Control and Prevention, arthritis—characterized by joint inflammation, pain and decreased range of motion—is the United States' most common cause of disability affecting more than 52 million adults as well as 300,000 children at a cost exceeding \$120 billion.

Our third gene-therapy program is in the research phase and is focused on the treatment of arthritis and related conditions. Our goal is to deliver a protein therapy locally to the joint to provide sustained efficacy while avoiding key side effects typically associated with systemic therapy.

#### **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 Securities and Exchange Commission, or SEC, on March 9, 2017, in Part II, Item 1A. "Risk Factors" of our Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2017, filed with the SEC on August 9, 2017 and in Part II, Item 1A. "Risk Factors" of our Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2017, filed with the SEC on November 13, 2017, which are incorporated by reference in this prospectus. These risks include the following:

- We have incurred significant losses since our inception, which we anticipate will continue for the foreseeable future. As of September 30, 2017, 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 INDs, commence clinical trials or report data on the timelines we expect, and even if we are able to, the FDA 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.
- The net proceeds from this offering will not be sufficient to commercialize any of our product candidates and 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 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.
- There is no public market for the common warrants or the pre-funded warrants in this offering.
- The common warrants and the pre-funded warrants in this offering are speculative in nature.
- 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.

#### **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.

## THE OFFERING

Units offered by us in this offering	7,714,156 units, each consisting of one share of our common stock and one common warrant to purchase one share of our common stock.
Pre-funded units offered by us in this offering	We are also offering to each purchaser whose purchase of units in this offering would otherwise result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% of our outstanding common stock immediately following the consummation of this offering, 5,922,208 pre-funded units (each pre-funded unit consisting of one pre-funded warrant to purchase one share of our common stock and one common warrant to purchase one share of our common stock) in lieu of units that would otherwise result in the purchaser's beneficial ownership exceeding 4.99% of our outstanding common stock (or, at the election of the purchaser, 9.99%). The purchase price of each pre-funded unit will equal the price at which the units are being sold to the public in this offering, minus \$0.01, and the exercise price of each pre-funded warrant included in each pre-funded unit will be \$0.01 per share. The pre-funded warrants will be immediately exercisable and may be exercised at any time until the pre-funded warrants are exercised in full. This offering also relates to the shares of common stock issuable upon exercise of any pre-funded warrants sold in this offering.
Common warrants offered by us in this offering	Common warrants to purchase an aggregate of 13,636,364 shares of our common stock. Each unit and each pre-funded unit includes a common warrant to purchase one share of our common stock. Each common warrant will have an exercise price of \$0.77 per share, will be immediately separable from the common stock or pre-funded warrant, as the case may be, will be immediately exercisable and will expire on the fifth anniversary of the original issuance date, at which point it will automatically be exercised on a cashless basis. This prospectus also relates to the offering of the shares of common stock issuable upon exercise of the common warrants.
Option to purchase additional securities	The underwriter has the option to purchase up to 2,045,454 additional shares of common stock at a purchase price of \$0.76 per share and/or common warrants to purchase up to an aggregate of 2,045,454 shares of common stock at a purchase price of \$0.01 per common warrant with an exercise price of \$0.77 per share, less underwriting discounts and commissions. The underwriter can exercise this option at any time within 30 days from the date of this prospectus.

Common stock outstanding prior to this offering	14,719,987 shares of common stock.
Common stock outstanding after this offering	22,434,143 shares of common stock (assuming no exercise of the underwriter's option to purchase additional securities and assuming none of the common warrants or pre-funded warrants issued in this offering are exercised).
Use of proceeds	We estimate that the net proceeds to us from this offering, after deducting underwriting discounts and commissions and estimated offering expenses payable by us, will be approximately \$9.3 million (\$10.7 million if the underwriter's option to purchase additional shares of common stock and/or common warrants is exercised in full), based on a public offering price of \$0.77 per unit and \$0.76 per pre-funded unit, excluding any proceeds from the exercise of the common warrants and pre-funded warrants and giving effect to the sale of 2,727,273 units to entities affiliated with Randal J. Kirk in this offering, for which the underwriter will not receive any underwriting discount. We currently intend to use the net proceeds from this offering for the continued clinical and pre-clinical development of our product candidates, FCX-007 and FCX-013, and for the research of potential product candidates under the 2015 ECC, 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. See "Use of Proceeds" on page 18.
Risk Factors	An investment in our common stock involves a high degree of risk. See "Risk Factors" beginning on page 10 of this prospectus and the similarly titled sections in the documents incorporated by reference into this prospectus.
Nasdaq Capital Market symbol	FCSC.
<b>Outstanding Shares</b>	
The number of shares of our common stock to be outstanding after this offering is based on 14,719,987 shares of our common stock outstanding as of September 30, 2017, and excludes:	
<ul style="list-style-type: none"> <li>• 5,515,404 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 September 30, 2017;</li> <li>• 3,512,000 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 September 30, 2017;</li> </ul>	

- 1,116,350 shares of our common stock issuable upon the exercise of stock options outstanding as of September 30, 2017, at a weighted average exercise price of \$13.38 per share, of which stock options to purchase 660,225 shares of our common stock were then exercisable;
- 10,411,177 shares of our common stock issuable upon the exercise of warrants at a weighted average exercise price of \$4.85 per share, all of which warrants were then exercisable;
- an aggregate of 1,403,899 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, or the Equity Incentive Plan;
- 5,922,208 shares of our common stock issuable upon the exercise of pre-funded warrants to be issued to investors in this offering at an exercise price of \$0.01 per share;
- 13,636,364 shares of our common stock issuable upon the exercise of common warrants to be issued to investors in this offering at an exercise price of \$0.77 per share; and
- 436,364 shares (or 518,182 shares if the underwriter's option to purchase additional securities is exercised in full) of our common stock issuable upon exercise of the warrants to be issued to the underwriter in connection with this offering at an exercise price of \$0.9625 per share.

Additionally, one of our outstanding warrants, which is currently exercisable for 46,430 shares of our common stock at an exercise price per share of \$2.10, contains so-called full-ratchet anti-dilution provisions which will be triggered by the issuance of the shares of our common stock being offered hereby and upon any future issuance by us of shares of our common stock or common stock equivalents at a per share price below the then-exercise price of the warrant, subject to some exceptions. See "Dilution" on page 22 of this prospectus for more information about these anti-dilution adjustments.

Except as otherwise indicated herein, all information in this prospectus, including the number of shares that will be outstanding after this offering, does not assume or give effect to the exercise of options or warrants outstanding as of September 30, 2017.

Unless otherwise indicated, all information contained in this prospectus assumes no exercise by the underwriter of its option to purchase additional securities.

Entities affiliated with Randal J. Kirk have agreed to purchase an aggregate of 2,727,273 units in this offering at the public offering price. The underwriter will not, however, receive the underwriting discount on the securities purchased by these entities as they will on the other securities sold to the public in this offering. Except as otherwise indicated herein, all information contained in this prospectus gives effect to these purchases.

## RISK FACTORS

*An investment in our securities involves a high degree of risk. Before deciding whether to invest in our securities, you should carefully consider the risks described below and those discussed under the Section captioned "Risk Factors" contained in our Annual Report on Form 10-K for the fiscal year ended December 31, 2016, our Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2017 and our Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2017, which are incorporated by reference in this prospectus, together with the information included in this prospectus and documents incorporated by reference herein, and in any free writing prospectus that we have authorized for use in connection with this offering. If any of these risks actually occurs, our business, financial condition, results of operations or cash flow could be harmed. This could cause the trading price of our common stock to decline, resulting in a loss of all or part of your investment.*

### Risks Related to this Offering

***We have a significant number of outstanding convertible notes, convertible preferred stock, warrants and stock options, and future sales of the underlying shares of common stock could adversely affect the market price of our common stock.***

As of September 30, 2017, we had outstanding convertible notes convertible for 5,515,404 shares of our common stock (including accrued interest thereon), outstanding convertible preferred stock convertible for 3,512,000 shares of our common stock (including accrued interest thereon), outstanding warrants exercisable for 10,411,177 shares of our common stock at a weighted average exercise price of \$4.85 per share, all of which warrants were then exercisable, and outstanding stock options exercisable for 1,116,350 shares of our common stock at a weighted average exercise price of \$13.38 per share, of which stock options to purchase 660,625 shares of our common stock were then exercisable. One of our outstanding warrants, which is currently exercisable for 46,430 shares of our common stock at an exercise price per share of \$2.10, contains so-called full-ratchet anti-dilution provisions which will be triggered by the issuance of the securities being offered hereby and upon any future issuance by us of shares of our common stock or common stock equivalents at a per share price below the then-exercise price of the warrant, subject to some exceptions. Upon conversion of these notes or preferred stock or exercise of these warrants or stock options, we would issue additional shares of our common stock. As a result, our current stockholders as a group would own a substantially smaller interest in us and may have less influence on our management and policies than they now have. Furthermore, the holders may sell these shares in the public markets from time to time, without limitations on the timing, amount or method of sale. As our stock price rises, the holders may convert more of their notes or preferred stock or exercise more of their warrants or stock options and sell a large number of shares. This could cause the market price of our common stock to decline.

***We may be required to raise additional financing by issuing new securities with terms or rights superior to those of our existing securityholders, which could adversely affect the market price of shares of our common stock and our business.***

We will require additional financing to fund future operations, including expansion in current and new markets, development and acquisition, capital costs and the costs of any necessary implementation of technological innovations or alternative technologies. We may not be able to obtain financing on favorable terms, if at all. If we raise additional funds by issuing equity securities, the percentage ownership of our current stockholders will be reduced, and the holders of the new equity securities may have rights superior to those of our existing securityholders, which could adversely affect the market price of our common stock and the voting power of shares of our common stock. If we raise additional funds by issuing debt securities, the holders of these debt securities would similarly have some rights senior to those of our existing securityholders, and the terms of these debt securities could impose

restrictions on operations and create a significant interest expense for us which could have a materially adverse effect on our business.

***Management will have broad discretion as to the use of the proceeds from this offering, and we may not use the proceeds effectively.***

Our management will have broad discretion with respect to the use of proceeds of this offering, including for any of the purposes described in the section of this prospectus entitled "Use of Proceeds." You will be relying on the judgment of our management regarding the application of the proceeds of this offering. The results and effectiveness of the use of proceeds are uncertain, and we could spend the proceeds in ways that you do not agree with or that do not improve our results of operations or enhance the value of our common stock. Our failure to apply these funds effectively could harm our business, delay the development of our product candidates and cause the price of our common stock to decline.

***You will experience immediate and substantial dilution in the net tangible book value per share of the common stock included in the units or issuable upon exercise of the common warrants or pre-funded warrants in this offering.***

Since the effective price per share of common stock included in the units or issuable upon exercise of the common warrants or the pre-funded warrants being offered is substantially higher than the net tangible book deficit per share of our common stock outstanding prior to this offering, you will suffer immediate and substantial dilution in the net tangible book value of the common stock included in the units or issuable upon the exercise of the common warrants or the pre-funded warrants issued in this offering. See the section titled "Dilution" below for a more detailed discussion of the dilution you will incur if you purchase units in this offering.

***Issuances of shares of our common stock or securities convertible into or exercisable for shares of our common stock following this offering, as well as the exercise of options and warrants outstanding, will dilute your ownership interests and may adversely affect the future market price of our common stock.***

The issuance of additional shares of our common stock or securities convertible into or exchangeable for our common stock could be dilutive to stockholders if they do not invest in future offerings. We intend to use the net proceeds from this offering for the continued clinical and pre-clinical development of our product candidates, FCX-007 and FCX-013, and for the research of potential product candidates under the 2015 ECC, 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 may seek additional capital through a combination of private and public equity offerings, debt financings, strategic partnerships and alliances and licensing arrangements, which may cause your ownership interest to be diluted.

In addition, we have a significant number of options and warrants to purchase shares of our common stock outstanding, which will be increased by the number of pre-funded warrants and common warrants issued in the offering. If these securities are converted or exercised, you may incur further dilution. Moreover, to the extent that we issue additional convertible notes, convertible preferred stock, options or warrants to purchase, or securities convertible into or exchangeable for, shares of our common stock in the future and those options, warrants or other securities are exercised, converted or exchanged, stockholders may experience further dilution.

***There is no public market for the common warrants or the pre-funded warrants in this offering.***

There is no established public trading market for the common warrants or the pre-funded warrants in this offering, and we do not expect a market to develop. In addition, we do not intend to apply to list the common warrants or the pre-funded warrants on any national securities exchange or other nationally recognized trading system, including The Nasdaq Capital Market. Without an active market, the liquidity of the common warrants and the pre-funded warrants will be limited.

***The common warrants and the pre-funded warrants in this offering are speculative in nature.***

Neither the common warrants nor the pre-funded warrants in this offering confer any rights of common stock ownership on its holders, such as voting rights or the right to receive dividends, but rather merely represent the right to acquire shares of common stock at a fixed price and, with respect to the common warrants, during a fixed period of time. Specifically, commencing on the date of issuance, holders of the common warrants may exercise their right to acquire the common stock and pay an exercise price of \$0.77 per share, subject to certain adjustments, prior to the expiration of the common warrants on the fifth anniversary of the original issuance date, at which time the common warrants would be automatically exercised on a cashless basis. Commencing on the date of issuance, holders of the pre-funded warrants may exercise their right to acquire the common stock and pay an exercise price of \$0.01 per share, subject to certain adjustments, at any time until the pre-funded warrants are exercised in full. Moreover, following this offering, the market value of the common warrants and the pre-funded warrants, if any, is uncertain and there can be no assurance that the market value of the common warrants or the pre-funded warrants will equal or exceed their imputed offering price. Neither the common warrants nor the pre-funded warrants will be listed or quoted for trading on any market or exchange. There can also be no assurance that the market price of the common stock will ever equal or exceed the exercise price of the common warrants, and consequently, whether it will ever be profitable for holders of the common warrants to exercise the common warrants.

***A significant portion of our total outstanding shares are eligible to be sold into the market, which could cause the market price of our common stock to drop significantly, even if our business is doing well.***

Sales of a substantial number of shares of our common stock in the public market, either by us or by our current stockholders, or the perception that these sales could occur, could cause a decline in the market price of our securities. Such sales, along with any other market transactions, could adversely affect the market price of our common stock.

Upon completion of this offering, based on our shares outstanding as of September 30, 2017, we will have 22,434,143 shares of common stock outstanding. Of these shares, only 8,276,083 are subject to a contractual lock-up with the underwriter for this offering for a period of 90 days following this offering. These shares can be sold, subject to any applicable volume limitations under federal securities laws, after the earlier of the expiration of, or release from, the 90 day lock-up period. The balance of our outstanding shares of common stock, including any shares of common stock included in units or issuable upon the exercise of the common warrants and pre-funded warrants purchased in this offering other than shares acquired by our current stockholders who are also subject to the contractual lock-up, may be resold into the public market immediately without restriction, unless owned or purchased by our affiliates. Moreover, some of the holders of our common stock have the right, subject to specified conditions, to require us to file registration statements covering their shares or to include their shares in registration statements that we may file for ourselves or other stockholders.

As of September 30, 2017, there were approximately 2,511,915 shares subject to outstanding options or that are otherwise issuable under our Equity Incentive Plan, all of which shares we have registered under the Securities Act of 1933, as amended, or the Securities Act, on a registration statement on Form S-8. These shares can be freely sold in the public market upon issuance, subject to volume limitations applicable to affiliates and the lock-up agreements described above, to the extent applicable.

## **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 expectations related to the use of the proceeds from this offering;
- our expectation that our existing cash resources, plus the net proceeds of this offering, will be sufficient to enable us to fund our operations into the first quarter of 2019;
- 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 ability to maintain compliance with the listing requirements of the Nasdaq Capital Market;
- our need to raise substantial additional capital to fund our operations;
- our expectation to initiate the Phase 2 portion of the Phase 1/2 clinical trial of FCX-007 in the fourth quarter of 2017;
- our expectation to initiate enrollment of pediatric patients in the Phase 2 portion of our Phase 1/2 clinical trial of FCX-007 in the first quarter of 2018;
- our expectation to complete a toxicology/biodistribution study and submit an IND for FCX-013 to the FDA in the fourth quarter of 2017;
- our expectation to initiate a human safety clinical trial for FCX-013 in 2018;
- our product development goals under our collaborations with Intrexon for all of 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;
- the effect of legal and regulatory developments;
- the lack of a public market for the common warrants and the pre-funded warrants in this offering; and
- the speculative nature of the common warrants and the pre-funded warrants in this offering.

We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, and you 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 under "Risk Factors" on page 10 of this prospectus and the documents incorporated herein that we believe 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



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impact of any future acquisitions, mergers, dispositions, joint ventures, collaborations 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.

Except as required by law, we undertake no obligation to update or revise any forward-looking statements to reflect new information or future events or developments. You should not assume that our silence over time means that actual events are bearing out as expressed or implied in such forward-looking statements. Before deciding to purchase our securities, you should carefully consider the risk factors discussed and incorporated by reference in this prospectus and the documents incorporated herein.

## 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, 2016 and in Item 1 of Part I of our Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2017, which are incorporated by reference into this prospectus, except that share and per share information for the periods ended December 31, 2016 and December 31, 2015 have been revised to reflect the 1-for-3 reverse stock split of our issued and outstanding shares of common stock effective at the close of business on March 10, 2017.

We have derived the statements of operations data for each of the two years ended December 31, 2016 and December 31, 2015 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, 2016. We have derived the statements of operation data for the nine months ended September 30, 2017 and September 30, 2016 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 September 30, 2017.

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, 2016, 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)*

	Nine Months Ended September 30, (Unaudited)		(Adjusted for Stock Split) Year Ended December 31,	
	2017	2016	2016	2015
<b>Total revenue</b>	—	318	\$ 355	\$ 492
<b>Total cost of revenue</b>	—	697	697	722
<b>Gross loss</b>	—	(379)	(342)	(230)
<b>Operating Expenses</b>	14,077	21,625	26,137	37,177
<b>Operating loss</b>	(14,077)	(22,004)	(26,479)	(37,407)
<b>Other income (expense)</b>	(5,063)	10,206	11,187	2,954
<b>Loss before income taxes</b>	(19,140)	(11,798)	(15,292)	(34,453)
<b>Income taxes</b>	—	—	—	—
<b>Net loss</b>	<u>(19,140)</u>	<u>(11,798)</u>	<u>\$ (15,292)</u>	<u>\$ (34,453)</u>
<b>Per Share Information:</b>				
<b>Net loss:</b>				
<b>Basic*</b>	(1.58)	(0.81)	\$ (1.04)	\$ (2.45)
<b>Diluted</b>	(1.58)	(0.94)	\$ (1.18)	\$ (2.55)
<b>Weighted average number of common shares outstanding:</b>				
<b>Basic</b>	14,702,624	14,632,988	14,641,528	14,059,360
<b>Diluted</b>	<u>14,702,624</u>	<u>14,640,996</u>	<u>14,647,534</u>	<u>14,117,010</u>

\* Basic and Diluted net loss for the nine months ended September 30, 2017 includes \$4,163 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)*

	Nine Months Ended September 30, (Unaudited)		(Adjusted for Stock Split) Year Ended December 31,	
	2017	2016	2016	2015
<b>Loss per share—Basic:</b>				
Numerator for basic loss per share	(23,303)	(11,798)	\$ (15,292)	\$ (34,453)
Denominator for basic loss per share	14,702,624	14,632,988	14,641,528	14,059,360
Basic loss per common share	<u>(1.58)</u>	<u>(0.81)</u>	<u>\$ (1.04)</u>	<u>\$ (2.45)</u>
<b>Loss per share—Diluted:</b>				
Numerator for basic loss per share	(23,303)	(11,798)	\$ (15,292)	\$ (34,453)
Adjust: Change in fair value of dilutive warrants outstanding	—	1,958	1,958	1,529
Numerator for diluted loss per share	<u>(23,303)</u>	<u>(13,756)</u>	<u>\$ (17,250)</u>	<u>\$ (35,982)</u>
Denominator for basic loss per share	14,702,624	14,632,988	14,641,528	14,059,360
Plus: Incremental shares underlying "in the money" warrants outstanding	—	8,008	6,006	57,650
Denominator for diluted loss per share	14,702,624	14,640,996	14,647,534	14,117,010
Diluted loss per common share	<u>(1.58)</u>	<u>(0.94)</u>	<u>\$ (1.18)</u>	<u>\$ (2.55)</u>
Shares underlying "in the money" options outstanding	208,840	170,226	150,120	629,449
Shares underlying "out of the money" options outstanding	763,442	1,228,224	1,218,563	391,197
Shares underlying "in the money" warrants outstanding	46,979	—	17,858	299,081
Shares underlying "out of the money" warrants outstanding	9,521,152	3,534,122	4,382,445	1,573,803
Shares underlying convertible notes	5,297,059	5,304,533	5,304,533	—
Shares underlying convertible accrued interest on convertible notes	177,059	13,545	40,137	—
Shares underlying convertible preferred stock	3,477,333	—	—	—

## USE OF PROCEEDS

We estimate that the net proceeds from this offering will be approximately \$9.3 million, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, and excluding the proceeds, if any, from the exercise of the common warrants and pre-funded warrants issued pursuant to this offering. If the underwriter exercises its option to purchase additional securities in full, we estimate that the net proceeds will be approximately \$10.7 million, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, and excluding the proceeds, if any, from the exercise of the common warrants and pre-funded warrants issued pursuant to this offering.

If all of the common warrants and pre-funded warrants sold in this offering were to be exercised in cash at an exercise price of \$0.77 and \$0.01 per share, respectively, we would receive additional net proceeds of approximately \$10.6 million. However, the common warrants contain a cashless exercise provision that permit exercise of the common warrants on a cashless basis (i) at any time where there is no effective registration statement under the Securities Act of 1933, as amended, covering the issuance of the underlying shares or (ii) on the expiration date of the common warrant. We cannot predict when or if these common warrants will be exercised or whether they will be exercised for cash. Additionally, the pre-funded warrants may be exercised at any time until the pre-funded warrants are exercised in full. It is possible that the common warrants may be exercised solely on a cashless basis or that the pre-funded warrants may never be exercised.

As of September 30, 2017, we had cash and cash equivalents of \$11.9 million. We intend to use the net proceeds from this offering to continue to fund the clinical and pre-clinical development of FCX-007 and FCX-013, and for the research of potential product candidates under the 2015 ECC, and for other general corporate purposes, which may include, without limitation:

- 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 administrative expenses.

This expected use of net proceeds from this offering and our existing cash and cash equivalents represents our intentions based upon our current plans and business conditions, which could change in the future as our plans and business conditions evolve. The amounts and timing of our use of the net proceeds from this offering will depend on a number of factors, such as the timing and progress of our research and development efforts, the timing and progress of any partnering efforts, technological advances and the competitive environment for our product candidates. As of the date of this prospectus, we cannot specify with certainty all of the particular uses for the net proceeds to us from the sale of the securities offered by us hereunder. Accordingly, our management will have broad discretion in the timing and application of these proceeds. Pending application of the net proceeds as described above, we intend to temporarily invest the proceeds in short-term, interest-bearing instruments.

Although it is difficult to predict future liquidity requirements, we believe that the net proceeds from this offering, together with our existing cash resources, will be sufficient to enable us to fund our operations into the first quarter of 2019. We have based this estimate on assumptions that may prove to be incorrect, and we could use our available capital resources sooner than we currently expect.

### 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, as reported on the Nasdaq Capital Market for the periods indicated:

	Market Price	
	High	Low
First quarter 2015	\$ 17.97	\$ 7.14
Second quarter 2015	\$ 19.20	\$ 9.75
Third quarter 2015	\$ 22.80	\$ 11.04
Fourth quarter 2015	\$ 18.54	\$ 10.50
First quarter 2016	\$ 13.86	\$ 6.12
Second quarter 2016	\$ 11.34	\$ 2.73
Third quarter 2016	\$ 4.14	\$ 2.10
Fourth quarter 2016	\$ 3.15	\$ 1.56
First quarter 2017	\$ 3.51	\$ 1.86
Second quarter 2017	\$ 4.64	\$ 1.80
Third quarter 2017	\$ 4.17	\$ 2.41
Fourth quarter 2017 (through December 6, 2017)	\$ 3.29	\$ 1.00

As of December 6, 2017, the closing price of our common stock as reported by the Nasdaq Capital Market was \$1.00. As of December 6, 2017, we had approximately 32 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 convertible preferred stock each restrict our ability to pay cash dividends on our equity securities.

## CAPITALIZATION

The following table sets forth our cash and cash equivalents and capitalization as of September 30, 2017:

- on an actual basis;
- on an as adjusted basis to give further effect to our sale of 7,714,156 units and 5,922,208 pre-funded units in this offering at a public offering price of \$0.77 and 0.76 per unit and pre-funded unit, respectively, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, and excluding the proceeds, if any, from the exercise of the common warrants or pre-funded warrants issued pursuant to this offering.

You should read this table together with our consolidated financial statements and the related notes and the "Management's Discussion and Analysis of Financial Condition and Results of Operations" section of our Quarterly Report on Form 10-Q for the quarter ended September 30, 2017, filed with the SEC on November 13, 2017, which is incorporated by reference into this prospectus.

	As of September 30, 2017	
	Actual	As Adjusted
	(in thousands except share data)	
Cash and cash equivalents	\$ 11,911	\$ 21,169
Warrant liability	10,735	10,735
Derivative liability	1,442	1,442
Convertible promissory notes, net of debt discount \$18,003*	—	—
Stockholders' equity (deficit)		
Preferred stock, \$0.001 par value per share; 5,000,000 shares authorized		
Series A nonredeemable convertible preferred stock; 8,000 shares designated, 8,000 shares issued and outstanding as of September 30, 2017; aggregate liquidation preference of \$8,182 at September 30, 2017	—	—
Common stock, \$0.001 par value per share; 150,000,000 shares authorized, 14,719,987 shares issued and outstanding, actual; 150,000,000 shares authorized; 22,434,143 shares issued and outstanding, as adjusted	15	22
Additional paid-in capital	178,362	187,613
Accumulated deficit	(181,703)	(181,703)
Total stockholders' equity (deficit)	(3,326)	5,932
Total capitalization	\$ 8,851	\$ 18,109

\* The principal value of the convertible promissory notes is \$18,003 as of September 30, 2017.

The foregoing table and calculations are based on 14,719,987 shares of our common stock outstanding as of September 30, 2017, and excludes:

- 5,515,404 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 September 30, 2017;

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- 3,512,000 shares of our common stock issuable upon the conversion of our convertible preferred stock, including accrued dividends thereon, payable in shares of our common stock, outstanding as of September 30, 2017;
- 1,116,350 shares of our common stock issuable upon the exercise of stock options outstanding as of September 30, 2017, at a weighted average exercise price of \$13.38 per share, of which stock options to purchase 660,625 shares of our common stock were then exercisable;
- 10,411,177 shares of our common stock issuable upon the exercise of warrants at a weighted average exercise price of \$4.85 per share, all of which warrants were then exercisable;
- an aggregate of 1,403,899 shares of our common stock reserved for future grants of stock options (or other similar equity instruments) under the Equity Incentive Plan;
- 5,922,208 shares of our common stock issuable upon the exercise of pre-funded warrants to be issued to investors in this offering at an exercise price of \$0.01 per share;
- 13,636,364 shares of our common stock issuable upon the exercise of common warrants to be issued to investors in this offering at an exercise price of \$0.77 per share; and
- 436,364 shares (or 518,182 shares if the underwriter's option to purchase additional securities is exercised in full) of our common stock issuable upon exercise of the warrants to be issued to the underwriter in connection with this offering at an exercise price of \$0.9625 per share.



## DILUTION

If you invest in our common stock in this offering, your ownership interest will be diluted immediately to the extent of the difference between the effective public offering price per share of our common stock included in the units or issuable upon exercise of the pre-funded warrants and the as adjusted net tangible book deficit per share of our common stock after this offering.

Our historical net tangible book deficit as of September 30, 2017 was \$(3.3) million, or \$(0.23) per share of our common stock. Historical net tangible book deficit per share represents the amount of our total tangible assets less total liabilities, divided by the number of shares of our common stock outstanding as of September 30, 2017.

After giving effect to our sale of 7,714,156 units and 5,922,208 pre-funded units in this offering at a public offering price of \$0.77 per unit and \$0.76 per pre-funded unit, respectively, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, and excluding the proceeds, if any, from the exercise of the common warrants and pre-funded warrants issued pursuant to this offering, our as adjusted net tangible book value as of September 30, 2017 would have been \$5.9 million, or \$0.26 per share. This represents an immediate increase in net tangible book value per share of \$0.49 to existing stockholders and immediate dilution of \$0.51 per share to new investors purchasing units in this offering. Dilution per share to new investors is determined by subtracting as adjusted net tangible book value per share after this offering from the public offering price per unit paid by new investors. The following table illustrates this dilution on a per share basis:

Public offering price per unit	\$ 0.77
Historical net tangible book deficit per share as of September 30, 2017	\$ (0.23)
Increase in net tangible book value per share attributable to new investors	0.49
As adjusted net tangible book value per share after this offering	0.26
Dilution per share to new investors	\$ 0.51

If the underwriter exercises its option to purchase additional securities in full, the as adjusted net tangible book value per share after this offering would be \$0.30 per share, the increase in net tangible book value per share to existing stockholders would be \$0.53 per share and the dilution to new investors purchasing units in this offering would be \$0.47 per share.

The foregoing table and calculations are based on 14,719,987 shares of our common stock outstanding as of September 30, 2017, and excludes:

- 5,515,404 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 September 30, 2017;
- 3,512,000 shares of our common stock issuable upon the conversion of our convertible preferred stock, including accrued dividends thereon, payable in shares of our common stock, outstanding as of September 30, 2017;
- 1,116,350 shares of our common stock issuable upon the exercise of stock options outstanding as of September 30, 2017, at a weighted average exercise price of \$13.38 per share, of which stock options to purchase 660,625 shares of our common stock were then exercisable;
- 10,411,177 shares of our common stock issuable upon the exercise of warrants at a weighted average exercise price of \$4.85 per share, all of which warrants were then exercisable;

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- an aggregate of 1,403,899 shares of our common stock reserved for future grants of stock options (or other similar equity instruments) under the Equity Incentive Plan; and
- 5,922,208 shares of our common stock issuable upon the exercise of pre-funded warrants to be issued to investors in this offering at an exercise price of \$0.01 per share;
- 13,636,364 shares of our common stock issuable upon the exercise of common warrants to be issued to investors in this offering at an exercise price of \$0.77 per share; and
- 436,364 shares (or 518,182 shares if the underwriter's option to purchase additional securities is exercised in full) of our common stock issuable upon exercise of the warrants to be issued to the underwriter in connection with this offering at an exercise price of \$0.9625 per share.

Additionally, one of our outstanding warrants, which is currently exercisable for 46,430 shares of our common stock at an exercise price per share of \$2.10, contains so-called full-ratchet anti-dilution provisions which will be triggered by the issuance of the shares of our common stock being offered hereby and upon any future issuance by us of shares of our common stock or common stock equivalents at a per share price below the then-exercise price of the warrant, subject to some exceptions. Upon consummation of this offering, we anticipate that the exercise price of this outstanding warrant will be adjusted downward to the public offering price in this offering and the number of shares underlying this warrant will be increased to 126,627, based on the public offering price of \$0.77 per unit.

To the extent that any convertible notes, convertible preferred stock, options or warrants are exercised or converted, new options are issued under our Equity Incentive Plan, pre-funded units are sold in this offering or we otherwise issue additional shares of common stock in the future at a price less than the public offering price, there may be further dilution to new investors purchasing common stock in this offering.

## 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 Convertible Preferred Stock, or the Series A Preferred Stock.

As of September 30, 2017, we had 14,719,987 shares of our common stock and 8,000 shares of our Series A Preferred Stock issued and outstanding held by 30 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 Convertible 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, each a Unit and collectively 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 429 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

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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 \$2.32710 (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 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, otherwise comes to own a percentage of our common stock in excess of the Ownership Threshold, 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

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on a share of Series A Preferred Stock increase 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 September 30, 2017, we had outstanding:

- warrants held by certain of our investors issued in connection with a preferred stock financing to purchase up to 46,430 shares of our common stock at an exercise price of \$2.10, which will remain exercisable until December 13, 2017;
- warrants held by certain of our investors issued in connection with a 2012 convertibles notes financing to purchase up to 375,194 shares of our common stock, at an exercise price of \$7.50 per share, which will remain exercisable until June 1, 2018;
- warrants held by certain of our investors to purchase up to an aggregate of 523,045 shares of our common stock, at an exercise price of \$22.50 per share, which will remain exercisable until December 13, 2018;
- warrants held by certain of our investors, or the 2016 Private Placement Warrants, to purchase up to an aggregate of 6,029,174 shares of our common stock, at an exercise price of \$4.50 per share, which will remain exercisable until September 7, 2021; and
- 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 3,437,334 shares of our common stock, at a weighted-average exercise price of \$2.54 per share, which will remain exercisable until March 8, 2022.

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

Additionally, one of our outstanding warrants, which is currently exercisable for 46,430 shares of our common stock at an exercise price per share of \$2.10, contains so-called full-ratchet anti-dilution provisions which will be triggered by the issuance of the shares of our common stock being offered hereby and upon any future issuance by us of shares of our common stock or common stock equivalents at a per share price below the then-exercise price of the warrant, subject to some exceptions. Upon consummation of the offering, we anticipate that the exercise price of this outstanding warrant will be adjusted downward to the public offering price in this offering and the number of shares underlying this warrant will be increased to 126,627, based on the public offering price of \$0.77 per unit.

**Options**

As of September 30, 2017, options to purchase an aggregate of 1,116,350 shares of our common stock, at a weighted-average exercise price of 13.38 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

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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 the 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 the 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, our Chairman of the 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 the 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 the 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 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

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in the private placement. The registration rights agreement contains customary terms such as demand and piggyback registration rights.

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 each such investor pursuant to the convertible promissory notes then owned by each 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 each 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."



## DESCRIPTION OF SECURITIES WE ARE OFFERING

We are offering (i) 7,714,156 units, each unit consisting of one share of our common stock and one common warrant to purchase one share of our common stock and (ii) 5,922,208 pre-funded units, each pre-funded unit consisting of one pre-funded warrant to purchase one share of our common stock and one common warrant to purchase one share of our common stock. The share of common stock and accompanying common warrant included in each unit will be issued separately, and the pre-funded warrant to purchase one share of common stock and the accompanying common warrant included in each pre-funded unit will be issued separately. Units or pre-funded units will not be issued or certificated. We are also registering the shares of common stock included in the units and the shares of common stock issuable from time to time upon exercise of the pre-funded warrants included in pre-funded units and the common warrants included in the units and the pre-funded units offered hereby.

### Common Stock

The material terms and provisions of our common stock and each other class of our securities which qualifies or limits our common stock are described under the caption "Description of Capital Stock" in this prospectus.

### Common Warrants

The following is a summary of all material terms and provisions of the common warrants that are being offered hereby, the form of which has been filed as an exhibit to the registration statement of which this prospectus is a part. Prospective investors should carefully review the terms and provisions of the form of common warrant for a complete description of the terms and conditions of the common warrants.

#### *Duration and Exercise Price*

Each common warrant offered hereby will have an exercise price equal to \$0.77. The common warrants will be immediately exercisable and may be exercised until the fifth anniversary of the issuance date, at which time they will be automatically exercised on a cashless basis. The exercise price and number of shares of common stock issuable upon exercise is subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our common stock and the exercise price. The common warrants will be issued separately from the common stock or pre-funded warrants sold as part of the units or pre-funded units, respectively, and may be transferred separately immediately thereafter. Common warrants will be issued in certificated form only.

#### *Exercisability*

The common warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice accompanied by payment in full for the number of shares of our common stock purchased upon such exercise (except in the case of a cashless exercise as discussed below). A holder (together with its affiliates) may not exercise any portion of such holder's common warrants to the extent that the holder would own more than 4.99% of the outstanding common stock immediately after exercise, except that upon at least 61 days' prior notice from the holder to us, the holder may increase the amount of ownership of outstanding stock after exercising the holder's common warrants up to 9.99% of the number of shares of our common stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the common warrants.

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### *Cashless Exercise*

If, at the time a holder exercises its common warrants, a registration statement registering the issuance of the shares of common stock underlying the common warrants under the Securities Act is not then effective or available for the issuance of such shares, then in lieu of making the cash payment otherwise contemplated to be made to us upon such exercise in payment of the aggregate exercise price, the holder may elect instead to receive upon such exercise (either in whole or in part) the net number of shares of common stock determined according to a formula set forth in the common warrant. The common warrants will be automatically exercised on a cashless basis on the expiration date.

### *Fundamental Transactions*

In the event of any fundamental transaction, as described in the common warrants and generally including any merger with or into another entity, sale of all or substantially all of our assets, tender offer or exchange offer, or reclassification of our common stock, then upon any subsequent exercise of a common warrant, the holder will have the right to receive as alternative consideration, for each share of our common stock that would have been issuable upon such exercise immediately prior to the occurrence of such fundamental transaction, the number of shares of common stock of the successor or acquiring corporation or of our company, if it is the surviving corporation, and any additional consideration receivable upon or as a result of such transaction by a holder of the number of shares of our common stock for which the common warrant is exercisable immediately prior to such event. In addition, in certain circumstances, upon a fundamental transaction, the holder will have the right to require us to repurchase its common warrants at their fair value using the Black Scholes option pricing formula; provided, however, such holder may not require us or our successor entity to repurchase the common warrants for the Black Scholes value solely in connection with a fundamental transaction that is not approved by our board of directors, and therefore not within our control.

### *Transferability*

Subject to applicable laws and a standard legend with regard to restriction on transfer only in compliance with a public offering or an available exemption therefrom, the common warrant may be transferred at the option of the holder upon surrender of the common warrant to us together with the appropriate instruments of transfer.

### *No Listing*

There is no established trading market for the common warrants, and we do not expect an active trading market to develop. We do not intend to apply to list the common warrants on any securities exchange or other trading market. Without a trading market, the liquidity of the common warrants will be extremely limited.

### *Right as a Shareholder*

Except as otherwise provided in the common warrants or by virtue of the holder's ownership of shares of our common stock, such holder of common warrants does not have the rights or privileges of a holder of our common stock, including any voting rights, until such holder exercises such holder's common warrants.

### *Waivers and Amendments*

No term of the common warrants may be amended or waived without the written consent of the holder of such warrant.

## **Pre-Funded Warrants**

The following is a summary of all material terms and provisions of the pre-funded warrants that are being offered hereby, the form of which has been filed as an exhibit to the registration statement of which this prospectus is a part. Prospective investors should carefully review the terms and provisions of the form of pre-funded warrant for a complete description of the terms and conditions of the pre-funded warrants.

Pre-funded warrants provide any purchaser in this offering with the ability to purchase pre-funded units (each pre-funded unit consisting of one pre-funded warrant to purchase one share of our common stock and one common warrant to purchase one share of our common stock) in lieu of units that would otherwise result in the purchaser's beneficial ownership exceeding 4.99% of our outstanding common stock (or, at the election of the purchaser, 9.99%). This is accomplished through purchasing pre-funded warrants at a price equal to the purchase price for units, less \$0.01, which \$0.01 is the exercise price for the pre-funded warrants. Each pre-funded warrant is exercisable into one share of our common stock as offered hereunder. Thus, the purchaser is paying essentially the purchase price for a unit at closing of the offering but is not deemed to beneficially own the shares of common stock included in the units until the purchaser exercises the pre-funded warrant. Once purchased, the purchase price of the pre-funded warrants is not refundable. While the pre-funded warrants permit waiver of provisions by us and the holder of the pre-funded warrants, this would not affect the pre-funding as that is the purchase price of the instrument which is paid at the time of closing and becomes part of our proceeds received from this offering. In addition, the pre-funded warrants are perpetual and do not have an expiration date.

### *Duration and Exercise Price*

Each pre-funded warrant will have an outstanding exercise price per share equal to \$0.01. The pre-funded warrants will be immediately exercisable and may be exercised at any time until the pre-funded warrants are exercised in full. The exercise price and number of shares of common stock issuable upon exercise is subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our common stock and the exercise price. The pre-funded warrants will be issued separately from the accompanying common warrants included in the pre-funded units, and may be transferred separately immediately thereafter.

### *Exercisability*

The pre-funded warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice accompanied by payment in full for the number of shares of our common stock purchased upon such exercise (except in the case of a cashless exercise as discussed below). A holder (together with its affiliates) may not exercise any portion of the pre-funded warrant to the extent that the holder would own more than 4.99% of the outstanding common stock immediately after exercise, except that upon at least 61 days' prior notice from the holder to us, the holder may increase the amount of ownership of outstanding common stock after exercising the holder's pre-funded warrants up to 9.99% of the number of shares of our common stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the pre-funded warrants. Purchasers of pre-funded units in this offering may also elect prior to the issuance of the pre-funded warrants to have the initial exercise limitation set at 9.99% of our outstanding common stock.

### *Cashless Exercise*

If, at the time a holder exercises its pre-funded warrants, there is no effective registration statement registering, or the prospectus contained therein is not available for an issuance of the shares

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underlying the pre-funded warrants to the holder, then in lieu of making the cash payment otherwise contemplated to be made to us upon such exercise in payment of the aggregate exercise price, the holder may elect instead to exercise its pre-funded warrants on a cashless basis and receive upon such exercise (either in whole or in part) the net number of shares of common stock determined according to a formula set forth in the pre-funded warrant.

### *Fundamental Transactions*

In the event of any fundamental transaction, as described in the pre-funded warrants and generally including any merger with or into another entity, sale of all or substantially all of our assets, tender offer or exchange offer, or reclassification of our common stock, then upon any subsequent exercise of a pre-funded warrant, the holder will have the right to receive as alternative consideration, for each share of our common stock that would have been issuable upon such exercise immediately prior to the occurrence of such fundamental transaction, the number of shares of common stock of the successor or acquiring corporation or of our company, if it is the surviving corporation, and any additional consideration receivable upon or as a result of such transaction by a holder of the number of shares of our common stock for which the pre-funded warrant is exercisable immediately prior to such event.

### *Transferability*

Subject to applicable laws, a pre-funded warrant may be transferred at the option of the holder upon surrender of the pre-funded warrant to us together with the appropriate instruments of transfer.

### *Fractional Shares*

No fractional shares of common stock will be issued upon the exercise of the pre-funded warrants. Rather, the number of shares of common stock to be issued will, at our election, either be rounded up to the nearest whole number or we will pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the exercise price.

### *Trading Market*

There is no established trading market for the pre-funded warrants on any securities exchange or nationally recognized trading system, and we do not expect an active trading market to develop. We do not intend to list the pre-funded warrants on any securities exchange or other trading market. Without a trading market, the liquidity of the pre-funded warrants will be extremely limited.

### *Right as a Stockholder*

Except as otherwise provided in the pre-funded warrants or by virtue of the holder's ownership of shares of our common stock, such holder of pre-funded warrants does not have the rights or privileges of a holder of our common stock, including any voting rights, until such holder exercises such holder's pre-funded warrants.

## **CERTAIN RELATIONSHIPS AND TRANSACTIONS WITH RELATED PERSONS**

Since January 1, 2014, 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.

### **Intrexon Collaborations**

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

Our first exclusive channel collaboration agreement with Intrexon was entered into in October 2012, and was subsequently amended in June 2013 and January 2014. We refer to this collaboration as the 2012 ECC. 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. During 2016, we incurred research and development expenses of \$3.7 million under the 2012 ECC. As of October 31, 2017, we have incurred research and development expenses of approximately \$4.8 million in 2017 under the 2012 ECC.

In December 2015, we entered into our second exclusive channel collaboration agreement with Intrexon, 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. During 2016, we did not incur any research and development expenses under the 2015 ECC, however, we paid Intrexon \$10.0 million related to an up-front technology access fee in January 2016. We have not incurred any research and development expenses under the 2015 ECC in 2017, as of September 30, 2017.

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 38% of our common stock, as of December 1, 2017. 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, each a Note and collectively, the Notes, and accompanying warrants to purchase an aggregate of 6,029,174 shares of our common stock in a private placement to institutional and accredited investors, or the 2016 Private Placement. 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 FDA for the treatment of RDEB. 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.

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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.

Certain of our stockholders who held more than 5% of our voting securities at the time of the transaction and their affiliated entities purchased shares in our 2016 Private Placement. 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 and 2016 Private Placement Warrants to purchase an aggregate of 2,254,168 shares of common stock.

We have elected to accrue all interest due on the Notes. In June 2017, we issued 14,895 shares of restricted 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 7,195 shares of restricted 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 2,821 shares of restricted 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.

### **Registration Rights Agreement**

On September 7, 2016, we entered into a registration rights agreement with certain holders of the Notes and 2016 Private Placement Warrants in connection with the 2016 Private Placement, pursuant to which we will 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, which are described further in "Description of Capital Stock—Registration Rights," above.

### **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 convertible into 429 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 Series A Preferred Stock Offering. Certain of our stockholders who held more than 5% of our voting securities at the time of the transaction and their affiliated entities purchased shares in our Series A Preferred Stock Offering. 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 accompanying warrants to purchase 1,295,875 shares of common stock for aggregate gross proceeds of \$3,016,000. See "Description of Capital Stock—Series A Convertible Preferred Stock" for more information about the Series A Preferred Stock.

## PRINCIPAL STOCKHOLDERS

The following table sets forth information with respect to the beneficial ownership of our common stock as of December 6, 2017 by:

- each of our directors;
- each of our named executive officers;
- all of our current directors and executive officers as a group; and
- each person, or group of affiliated persons, who is known by us to beneficially own more than 5% of our common stock based on currently available Schedules 13D and 13G filed with the SEC.

The percentage ownership information under the column entitled "Before offering" is based on 14,719,987 shares of our common stock outstanding as of December 6, 2017. The percentage ownership information under the column entitled "After offering" gives effect to the sale of 7,714,156 units and 5,922,208 pre-funded units in this offering, and assumes no exercise of the underwriter's option to purchase additional securities and no exercise of the common warrants and pre-funded warrants issued pursuant to this offering.

Intrexon, our partner on certain of our development programs and an affiliate of Randal J. Kirk, and certain of Mr. Kirk's other affiliates have agreed to purchase 2,727,273 units in this offering. Except as set forth in footnote (1), the following table does not reflect any such purchases by these entities in this offering.

Beneficial ownership is determined in accordance with the rules and regulations of the SEC and includes voting or investment power with respect to our common stock. Shares of our common stock subject to options and warrants that are currently exercisable or exercisable within 60 days after December 6, 2017 are considered outstanding and beneficially owned by the person holding the options or warrants for the purpose of calculating the percentage ownership of that person but not for the purpose of calculating the percentage ownership of any other person. Except as otherwise noted, the persons and entities in this table have sole voting and investing power with respect to all of the shares of our common stock beneficially owned by them, subject to community property laws, where

applicable. Except as otherwise set forth below, the address of each beneficial owner is c/o Fibrocell Science, Inc., 405 Eagleview Blvd., Exton, Pennsylvania 19341.

Name and Address of Beneficial Owner	Number of shares beneficially owned	Percentage of shares beneficially owned	
		Before offering	After offering
<b>5% Stockholders:</b>			
Randal J. Kirk(1)	5,540,138	37.6%	24.7%
FMR LLC(2)	868,814	5.9%	3.9%
<b>Directors and Named Executive Officers:</b>			
John Maslowski(3)	83,272	*	*
David Pernock(4)	248,000	1.7%	1.1%
Keith A. Goldan(5)	667	*	*
Michael F. Marino	—	*	*
Julian Kirk(6)	40,667	*	*
Marc Mazur(7)	50,335	*	*
Kelvin Moore(8)	47,520	*	*
Marcus E. Smith(6)	40,667	*	*
Christine St.Clare(9)	44,001	*	*
Douglas J. Swirsky(6)	40,667	*	*
All Current Executive Officers and Directors as a Group (7 persons)(10)	347,129	2.3%	1.5%

\* Less than one percent.

- (1) Based on the Schedule 13D/A filed by Randal J. Kirk on July 27, 2015, Third Security, LLC, or Third Security, has sole voting and investment power with respect to 10,219,631 shares (3,406,544 on a post-split basis) of Fibrocell common stock held by NRM VII Holdings I, LLC, or NRM VII Holdings, Kapital Joe, LLC, or Kapital Joe, and Mascara Kaboom, LLC, or Mascara Kaboom, and Intrexon has shared voting and investment power with respect to 6,400,783 shares (2,133,594 on a post-split basis) of Fibrocell common stock held by Intrexon.

Based on Schedule 13D/A filed by Third Security on September 9, 2016, or the 2016 13D/A, NRM VII Holdings, Intrexon, Kapital Joe, and Mascara Kaboom acquired an aggregate of \$6,762,500 principal amount of convertible promissory notes and accompanying warrants to purchase 6,762,500 shares (2,254,168 on a post-split basis) of our common stock in a private placement transaction that closed on September 7, 2016. Unpaid principal and interest on the notes is convertible into shares of common stock at the option of the note holder at \$1.13625 (\$3.40875 on a post-split basis), subject to adjustment.

Based on Schedule 13D/A filed by Third Security on March 10, 2017, or the 2017 13D/A, NRM VII Holdings, Intrexon, Kapital Joe, and Mascara Kaboom acquired an aggregate of 3,016 units, comprised of (i) 3,016 shares of Series A Preferred Stock convertible into 3,887,624 shares (1,293,864 on a post-split basis) of common stock and (ii) warrants to purchase 3,887,624 shares (1,295,875 on a post-split basis) of common stock.

According to the 2016 13D/A and 2017 13D/A, the convertible promissory notes, the shares of Series A Preferred Stock and the warrants contain certain conversion and exercise restrictions. If NRM VII Holdings, Intrexon, Kapital Joe and Mascara Kaboom exercised the warrants and converted the principal and accrued interest of the convertible promissory notes and the Series A Preferred Stock, NRM VII Holdings, Intrexon, Kapital Joe and Mascara Kaboom would receive, in the aggregate, (i) 3,550,043 shares (split-



effected) of our common stock pursuant to exercise of the warrants, (ii) 1,983,863 (split-effected) of common stock underlying \$6,762,500 outstanding principal amount of convertible promissory notes, (iii) 87,999 shares (split-effected) of common stock underlying an estimated \$299,969 of accrued interest on the convertible promissory notes and (iv) 1,324,024 shares (split-effected) of common stock underlying the Series A Preferred Stock (inclusive of dividends through December 6, 2017 payable by way of inclusion in the stated value of the Series A Preferred Stock, resulting in the beneficial ownership of approximately 57.6% 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.

The percentage of shares beneficially owned after this offering would be 36.9%, assuming the purchase of all of the units that the entities affiliated with Randal J. Kirk have agreed to purchase in this offering and no exercise of the underwriter's option to purchase additional securities.

- (2) Based on the Schedule 13-G filed by FMR LLC on February 14, 2017, Fidelity SelectCo, LLC (SelectCo), 1225 17th Street, Suite, 1100, Denver, Colorado 80202, a wholly-owned subsidiary of FMR and an investment adviser registered under Section 203 of the Investment Advisers Act of 1940, is the beneficial owner of 2,606,440 shares (868,814 on a post-split basis) of Fibrocell common stock as a result of acting as investment adviser to various investment companies registered under Section 8 of the Investment Company Act of 1940, or the SelectCo Funds. Abigail P. Johnson and FMR through its control of SelectCo, and the SelectCo Funds each has sole power to dispose of the 2,606,440 shares (868,814 on a post-split basis) owned by the SelectCo Funds. The ownership of one investment company, Fidelity Select Biotechnology Portfolio, amounted to 2,432,240 shares (810,747 on a post-split basis). Fidelity Select Biotechnology Portfolio has its principal business office at 245 Summer Street, Boston, Massachusetts 02210. Members of the family of Abigail P. Johnson, Chairman and Chief Executive Officer of FMR, are the predominant owners, directly or through trusts, of Series B voting common shares of FMR LLC, representing 49% of the voting power of FMR. The Johnson family group and all other Series B stockholders have entered into a stockholders' voting agreement under which all Series B voting common shares will be voted in accordance with the majority vote of Series B voting common shares. Accordingly, through their ownership of voting common shares and the execution of the stockholders' voting agreement, members of the Johnson family may be deemed, under the Investment Company Act of 1940, to form a controlling group with respect to FMR. The address for FMR is 245 Summer Street, Boston, Massachusetts 02210.
- (3) Consists of (i) 819 shares of common stock and (ii) options to purchase an aggregate of 82,453 shares of our common stock exercisable within 60 days of December 6, 2017.
- (4) Mr. Pernock resigned in December 2016. The share amounts set forth in the table consist of options to purchase 248,000 shares of common stock exercisable within 60 days of December 6, 2017.
- (5) Mr. Goldan resigned in January 2017. The share amounts set forth in the table consist of 667 shares of common stock held by Mr. Goldan as of December 6, 2017.
- (6) 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 December 6, 2017.

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- (7) Consists of (i) 3,000 shares of our common stock and (ii) options and warrants to purchase an aggregate of 47,335 shares of our common stock exercisable within 60 days of December 6, 2017.
- (8) Consists of (i) 1,519 shares of our common stock and (ii) options to purchase 46,001 shares of our common stock exercisable within 60 days of December 6, 2017.
- (9) Consists of (i) 3,334 shares of common stock and (ii) options to purchase 40,667 shares of our common stock exercisable within 60 days of December 6, 2017.
- (10) Consists of (i) 8,672 shares of common stock and (ii) options and warrants to purchase an aggregate of 338,457 shares of our common stock exercisable within 60 days of December 6, 2017.

## UNDERWRITING

We have entered into an underwriting agreement dated December 7, 2017, with H.C. Wainwright & Co., LLC as the sole book-running manager of this offering. Subject to the terms and conditions of the underwriting agreement, we have agreed to sell to the underwriter and the underwriter has agreed to purchase from us, at the public offering price less the underwriting discounts and commissions set forth on the cover page of this prospectus, 7,714,156 units and 5,922,208 pre-funded units.

A copy of the underwriting agreement has been filed as an exhibit to the registration statement of which this prospectus is a part. The units and pre-funded units we are offering are being offered by the underwriter subject to certain conditions specified in the underwriting agreement.

We have been advised by the underwriter that it proposes to offer the units and pre-funded units directly to the public at the public offering price set forth on the cover page of this prospectus. Any units or pre-funded units sold by the underwriter to securities dealers will be sold at the public offering price less a selling concession not in excess of \$0.03465 per unit or pre-funded unit.

The underwriting agreement provides that the underwriter's obligation to purchase the securities we are offering is subject to conditions contained in the underwriting agreement. The underwriter is obligated to purchase and pay for all of the units and pre-funded units offered by this prospectus.

No action has been taken by us or the underwriter that would permit a public offering of units in any jurisdiction where action for that purpose is required. None of the units or pre-funded units included in this offering may be offered or sold, directly or indirectly, nor may this prospectus or any other offering material or advertisements in connection with the offer and sales of any of the units or pre-funded units be distributed or published in any jurisdiction, except under circumstances that will result in compliance with the applicable rules and regulations of that jurisdiction. Persons who receive this prospectus are advised to inform themselves about and to observe any restrictions relating to this offering of the units or pre-funded units and the distribution of this prospectus. This prospectus is neither an offer to sell nor a solicitation of any offer to buy the units or pre-funded units in any jurisdiction where that would not be permitted or legal.

Entities affiliated with Randal J. Kirk have agreed to purchase an aggregate of 2,727,273 units in this offering at the public offering price. The underwriter will not, however, receive the underwriting discount on the securities purchased by these entities that they will on the other securities sold to the public in this offering.

The underwriter has advised us that it does not intend to confirm sales to any accounts over which it exercises discretionary authority.

### **Underwriting Discounts, Commissions and Expenses**

We have agreed to pay an underwriter discount equal to 7% of the aggregate gross proceeds raised in this offering, provided, however, that no discount shall be paid in regards to any gross proceeds raised by sales of securities in this offering to Randal J. Kirk, Intrexon Corporation, Third Security or any of their affiliates.

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The following table shows the public offering price, underwriting discounts and commissions and proceeds, before expenses to us. These amounts are shown assuming both no exercise and full exercise of the underwriter's option to purchase additional securities.

	Per Unit	Per Pre-funded Unit	Total	
			Without Option Exercise	With Full Option Exercise
Public offering price	0.77	0.76	10,440,778	12,015,778
Underwriting discounts and commissions(1)	0.0539	0.0539	588,000	698,250
Proceeds, before expenses, to us	0.7161	0.7061	9,852,778	11,317,528

- (1) We and the underwriter have agreed that the underwriter will not receive any underwriting discount on the 2,727,273 units that entities affiliated with Randal J. Kirk have agreed to purchase in this offering, which is reflected in the "Total" section of the table.

We estimate the total expenses payable by us for this offering to be approximately \$1.2 million, which amount includes (i) an underwriting discount of \$0.6 million (\$0.7 million if the underwriter's option to purchase additional securities is exercised in full) based upon the public offering price of \$0.77 per unit and \$0.76 per pre-funded unit, (ii) \$25,000 non-accountable expense allowance payable to the underwriter, (iii) reimbursement of the accountable expenses of the underwriter equal to \$100,000 (none of which has been paid in advance), including the legal fees of the underwriter being paid by us, and (iv) other estimated expenses of approximately \$470,000 which include legal, accounting, printing costs and various fees associated with the registration and listing of our shares.

### Underwriter Warrants

We have agreed to issue to the underwriter warrants to purchase a number of shares of our common stock equal to 4% of the aggregate number of shares of common stock (i) included within the units and (ii) issuable upon the exercise of the pre-funded warrants included within the pre-funded units sold in this offering excluding any shares of common stock and/or pre-funded warrants to be purchased by entities affiliated with Randal J. Kirk. The underwriter warrants will have a term of five years from the effective date of this prospectus and an exercise price per share of \$0.9625. Pursuant to FINRA Rule 5110(g), the underwriter warrants and any shares issued upon exercise of the underwriter warrants shall not be sold, transferred, assigned, pledged, or hypothecated, or be the subject of any hedging, short sale, derivative, put or call transaction that would result in the effective economic disposition of the securities by any person for a period of 180 days immediately following the date of effectiveness or commencement of sales of this offering, except the transfer of any security: (i) by operation of law or by reason of our reorganization; (ii) to any FINRA member firm participating in the offering and the officers or partners thereof, if all securities so transferred remain subject to the lock-up restriction set forth above for the remainder of the time period; (iii) if the aggregate amount of our securities held by the underwriter or related persons do not exceed 1% of the securities being offered; (iv) that is beneficially owned on a pro rata basis by all equity owners of an investment fund, provided that no participating member manages or otherwise directs investments by the fund and the participating members in the aggregate do not own more than 10% of the equity in the fund; or (v) the exercise or conversion of any security, if all securities remain subject to the lock-up restriction set forth above for the remainder of the time period.

## **Right of First Refusal**

We have also granted the underwriter, for a period of 10 months from the closing date of this offering, a right of first refusal to act as sole book-running manager for each and every future public or private equity offering by us or any of our successors or subsidiaries. We have also agreed to a tail fee equal to the cash and warrant compensation in this offering if any investor to which the underwriter introduced us with respect to this offering during the term of its engagement provides us with further capital in a public or private offering or capital raising transaction, with certain exceptions, during the 12-month period following termination of our engagement of the underwriter.

## **Option to Purchase Additional Securities**

We have granted the underwriter the option to purchase up to 2,045,454 additional shares of common stock at a purchase price of \$0.76 per share and/or common warrants to purchase up to an aggregate of 2,045,454 shares of common stock at a purchase price of \$0.01 per common warrant with an exercise price of \$0.77 per share, less the underwriting discounts and commissions. The underwriter may exercise its option at any time, and from time to time, within 30 days from the date of this prospectus. If any additional securities are purchased pursuant to the option to purchase additional shares of common stock and/or common warrants, the underwriter will offer these securities on the same terms as those on which the other securities are being offered hereby.

## **Nasdaq Capital Market Listing**

Our stock is currently traded on the Nasdaq Capital Market under the symbol "FCSC." On December 6, 2017, the last reported sale price of our common stock was \$1.00 per share.

## **Lock-up Agreements**

Our officers and directors and certain of our stockholders have agreed with the underwriter to be subject to a lock-up period of 90 days following the date of this prospectus. This means that, during the applicable lock-up period, such persons may not offer for sale, contract to sell, sell, distribute, grant any option, right or warrant to purchase, pledge, hypothecate or otherwise dispose of, directly or indirectly, any shares of our common stock or any securities convertible into, or exercisable or exchangeable for, shares of our common stock. Certain limited transfers are permitted during the lock-up period if the transferee agrees to these lock-up restrictions. We have also agreed in the underwriting agreement, subject to certain exceptions, to similar lock-up restrictions on the issuance and sale of our securities for 90 days following the closing of this offering. The underwriter may, in its sole discretion and without notice, waive the terms of any of these lock-up agreements.

## **Stabilization, Short Positions and Penalty Bids**

The underwriter may engage in syndicate covering transactions, stabilizing transactions and penalty bids or purchases for the purpose of pegging, fixing or maintaining the price of our common stock:

- Syndicate covering transactions involve purchases of securities in the open market after the distribution has been completed in order to cover syndicate short positions. Such a naked short position would be closed out by buying securities in the open market. A naked short position is more likely to be created if the underwriter is concerned that there could be downward pressure on the price of the securities in the open market after pricing that could adversely affect investors who purchase in the offering.
- Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specific maximum.

- Penalty bids permit the underwriter to reclaim a selling concession from a syndicate member when the securities originally sold by the syndicate member are purchased in a stabilizing or syndicate covering transaction to cover syndicate short positions.

These syndicate covering transactions, stabilizing transactions and penalty bids may have the effect of raising or maintaining the market prices of our securities or preventing or retarding a decline in the market prices of our securities. As a result, the price of our common stock may be higher than the price that might otherwise exist in the open market. Neither we nor the underwriter make any representation or prediction as to the effect that the transactions described above may have on the price of our common stock. These transactions may be effected on the Nasdaq Capital Market, in the over-the-counter market or on any other trading market and, if commenced, may be discontinued at any time.

In connection with this offering, the underwriter also may engage in passive market making transactions in our common stock in accordance with Regulation M during a period before the commencement of offers or sales of shares of our common stock in this offering and extending through the completion of the distribution. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for that security. However, if all independent bids are lowered below the passive market maker's bid that bid must then be lowered when specific purchase limits are exceeded. Passive market making may stabilize the market price of the securities at a level above that which might otherwise prevail in the open market and, if commenced, may be discontinued at any time.

Neither we nor the underwriter make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the prices of our securities. In addition, neither we nor the underwriter make any representation that the underwriter will engage in these transactions or that any transactions, once commenced, will not be discontinued without notice.

#### **Indemnification**

We have agreed to indemnify the underwriter against certain liabilities, including certain liabilities arising under the Securities Act, or to contribute to payments that the underwriter may be required to make for these liabilities.

#### **Other Relationships**

The underwriter and its respective affiliates have engaged in, and may in the future engage in, investment banking and other commercial dealings in the ordinary course of business with us or our affiliates. The underwriter has received, or may in the future receive, customary fees and commissions for these transactions.

## LEGAL MATTERS

The validity of the securities offered hereby is being passed upon for us by Hogan Lovells US LLP, Philadelphia, Pennsylvania. Lowenstein Sandler LLP, New York, New York is acting as counsel for the underwriter in connection with this offering.

## EXPERTS

The financial statements incorporated in this Prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2016 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, 2016, filed on March 9, 2017;
- our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2017, June 30, 2017 and September 30, 2017, filed on May 10, 2017, August 9, 2017 and November 13, 2017, respectively;
- those portions of our Definitive Proxy Statement on Schedule 14A filed on January 27, 2017 that are deemed "filed" with the SEC;
- those portions of our Definitive Proxy Statement on Schedule 14A filed on April 27, 2017 that are deemed "filed" with the SEC; and
- 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 9, 2017, January 26, 2017, February 13, 2017, February 23, 2017, March 1, 2017, March 3, 2017, March 8, 2017, March 10, 2017, May 9, 2017, June 27, 2017, September 26, 2017, October 4, 2017 and November 15, 2017.

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 is a part and prior to the effectiveness of such registration statement and all documents 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 this prospectus but prior to the termination of the 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 document will be deemed to be modified or superseded for purposes of the document to the extent that a statement contained in this document or any other subsequently filed

document that is deemed to be incorporated by reference into this document 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 the securities offered hereby. 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 is 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 is 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://fibrocell.com>. The content contained in, or that can be accessed through, our website is not a part of this prospectus.





**7,714,156 Units**

**(each Unit contains one Share of Common Stock and one Common Warrant to purchase one Share of Common Stock)**

**5,922,208 Pre-funded Units**

**(each Pre-funded Unit contains one Pre-funded Warrant to Purchase one Share of Common Stock and one Common Warrant to purchase one Share of Common Stock)**

**(5,922,208 Shares of Common Stock Underlying the Pre-funded Warrants) and**

**(13,636,364 Shares of Common Stock Underlying the Common Warrants)**

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**PROSPECTUS**

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*Sole Book-Running Manager*

**H.C. Wainwright & Co.**

**December 7, 2017**

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