

Celsion CORP
Form 424B5
May 29, 2015

**Filed Pursuant to Rule 424(b)(5)
Registration Statement No. 333-183286**

PROSPECTUS SUPPLEMENT

(To Prospectus dated September 14, 2012)

3,000,000 Shares of Common Stock

Pursuant to this prospectus supplement and the accompanying prospectus (the accompanying prospectus), we are offering 3,000,000 shares of our common stock, par value \$0.01 per share, to certain investors at an offering price of \$2.675 per share for an aggregate purchase price of \$8,025,000. In a concurrent private placement, we are selling to each purchaser of shares of our common stock in this offering a warrant to purchase 0.65 share of our common stock for each share of common stock purchased in this offering. The warrants will be exercisable at any time on or after the date of issuance at an exercise price of \$2.60 per share and will expire on the five-year anniversary of the date of issuance. The warrants and the shares of our common stock issuable upon exercise of the warrants are not being registered under the Securities Act of 1933, as amended (the Securities Act), are not being offered pursuant to this prospectus supplement and the accompanying prospectus and are being sold pursuant to the exemption provided in Section 4(a)(2) under the Securities Act and Rule 506(b) promulgated thereunder.

Our common stock is listed on The NASDAQ Capital Market under the symbol "CLSN." On May 27, 2015, the last reported sale price of our common stock on The NASDAQ Capital Market was \$2.60 per share.

As of May 27, 2015, the aggregate market value of our voting and non-voting common stock held by non-affiliates pursuant to General Instruction I.B.6. of Form S-3 was \$54,090,300.60, which was calculated based on 17,171,524 outstanding shares of our voting and non-voting common stock held by non-affiliates and at a price of \$3.15 per share, the closing sale price of our common stock reported on The NASDAQ Capital Market on April 15, 2015. As a result, we are eligible to offer and sell up to an aggregate of \$18,030,100.20 of shares of our common stock pursuant to General Instruction I.B.6. of Form S-3. Following this offering, we will have sold securities with an aggregate market value of \$8,025,000 pursuant to General Instruction I.B.6. of Form S-3 during the prior 12 calendar month period that ends on, and includes, the date of this prospectus supplement.

As of the date of this prospectus supplement, an aggregate of \$17,333,074.16 of shares of common stock and other securities remain unsold under the registration statement on Form S-3 (File No. 333-183286) we filed with the Securities and Exchange Commission on August 13, 2012, as amended on August 20, 2012 and declared effective on September 14, 2012.

Pursuant to the Controlled Equity OfferingSM Sales Agreement dated as of February 1, 2013 (the Sales Agreement), by and between Cantor Fitzgerald & Co. and us, we may offer and sell, from time to time through “at-the-market” offerings, up to an aggregate of \$25.0 million of shares of our common stock. We filed with the Securities and Exchange Commission a prospectus supplement dated February 1, 2013 to the accompanying prospectus, covering the sales of shares of our common stock under the Sales Agreement. We have sold shares of our common stock under the Sales Agreement generating total gross proceeds of approximately \$7.0 million and have up to approximately \$18.0 million available for future sale under the Sales Agreement. In connection with this offering, we have agreed not to sell any additional shares under the Sales Agreement until the three-month anniversary of the closing date of this offering.

Investing in our securities involves a high degree of risk. Before making an investment decision, please read “Risk Factors” beginning on page S-8 of this prospectus supplement, page 8 of the accompanying prospectus and in the documents incorporated by reference into this prospectus supplement and the accompanying prospectus.

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

We are selling the shares of common stock offered hereby directly to investors. We have retained Maxim Group LLC to act as the placement agent in connection with this offering. The placement agent has agreed to use its reasonable best efforts to solicit offers to purchase our common stock. We have agreed to pay the placement agent a fee of 7% of the aggregate gross proceeds in this offering. The placement agent is not purchasing or selling any shares of our common stock pursuant to this prospectus supplement or the accompanying prospectus, nor are we requiring any minimum purchase or sale of any specific number of shares of our common stock. See “Plan of Distribution” beginning on page S-28 of this prospectus supplement for more information regarding these arrangements.

	Per Share	Total
Public offering price	\$2.675	\$8,025,000
Placement agent fee ⁽¹⁾	\$0.18725	\$561,750
Proceeds, before expenses, to us	\$2.48775	\$7,463,250

In addition to the placement agent fees, we have agreed to pay up to \$75,000 of the reasonable out-of-pocket ⁽¹⁾expenses of the placement agent in connection with this offering. See “Plan of Distribution” beginning on page S-28 of this prospectus supplement for more information.

Delivery of the shares of common stock will take place on or about June 1, 2015, subject to the satisfaction of certain conditions.

Placement Agent

Maxim Group LLC

The date of this prospectus supplement is May 27, 2015

TABLE OF CONTENTS

	Page
Prospectus Supplement	
About this Prospectus Supplement	S-1
Prospectus Supplement Summary	S-2
The Offering	S-7
Risk Factors	S-8
Special Note Regarding Forward-Looking Statements	S-23
Use of Proceeds	S-25
Dividend Policy	S-25
Dilution	S-26
Price Range of Our Common Stock	S-27
Description of Securities We Are Offering	S-28
Plan of Distribution	S-28
Private Placement Transaction	S-30
Legal Matters	S-32
Experts	S-32
Where You Can Find More Information	S-33
Incorporation of Certain Documents by Reference	S-33
Prospectus	
About This Prospectus	1
Where You Can Find Additional Information	1
Information Incorporated by Reference	2
Forward-Looking Statements	3
Prospectus Summary	4
Risk Factors	8
Use of Proceeds	8
Dividend Policy	9
Description of Capital Stock	9
Description of Debt Securities	15
Description of Warrants	23
Description of Rights	25
Description of Units	26
Plan of Distribution	27
Legal Matters	29
Experts	29

ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying prospectus are part of a “shelf” registration statement on Form S-3 (File No. 333-183286) that we filed with the Securities and Exchange Commission on August 13, 2012, as amended on August 20, 2012 and declared effective on September 14, 2012.

This document is in two parts. The first part is this prospectus supplement, which describes the terms of this offering and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference into this prospectus supplement and the accompanying prospectus. The second part is the accompanying prospectus, which gives more general information about the shares of our common stock and other securities we may offer from time to time under our shelf registration statement, some of which does not apply to the securities offered by this prospectus supplement. To the extent there is a conflict between the information contained in this prospectus supplement, on the one hand, and the information contained in the accompanying prospectus or any document incorporated by reference herein or therein, on the other hand, you should rely on the information in this prospectus supplement.

You should read this prospectus supplement, the accompanying prospectus, the documents incorporated by reference in this prospectus supplement and the accompanying prospectus and any free writing prospectus that we have authorized for use in connection with this offering before making an investment decision. You should also read and consider the information in the documents referred to in the sections of this prospectus supplement entitled “Where You Can Find More Information” and “Incorporation of Certain Documents by Reference.”

You should rely only on the information contained or incorporated by reference in this prospectus supplement, the accompanying prospectus and any free writing prospectus that we have authorized for use in connection with this offering. We have not authorized anyone to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it.

We are not making an offer to sell the securities covered by this prospectus supplement in any jurisdiction where the offer or sale is not permitted.

The information appearing in this prospectus supplement, the accompanying prospectus, the documents incorporated by reference in this prospectus supplement and the accompanying prospectus and any free writing prospectus that we have authorized for use in connection with this offering is accurate only as of its respective date, regardless of the time of delivery of the respective document or of any sale of securities covered by this prospectus supplement. You should not assume that the information contained in or incorporated by reference in this prospectus supplement or the accompanying prospectus, or in any free writing prospectus that we have authorized for use in connection with this

offering, is accurate as of any date other than the respective dates thereof.

Unless the context indicates otherwise, as used in this prospectus, the terms “Celsion,” “the Company,” “we,” “us” and “our” refer to Celsion Corporation, a Delaware corporation, and its wholly-owned subsidiary, CLSN Laboratories, Inc., also a Delaware corporation. The Celsion brand and product names, including but not limited to Celsion®, ThermoDox®, EGEN®, TheraPlas™ and TheraSilence™ contained in this prospectus are trademarks, registered trademarks or service marks of Celsion Corporation or its subsidiary in the United States and certain other countries. This document may also contain references to trademarks and service marks of other companies that are the property of their respective owners.

S-1

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights certain information about us, this offering and selected information contained elsewhere in or incorporated by reference into this prospectus supplement and the accompanying prospectus. This summary is not complete and does not contain all of the information that you should consider before deciding whether to invest in the securities covered by this prospectus supplement. For a more complete understanding of Celsion and this offering, we encourage you to read and consider carefully the more detailed information in this prospectus supplement and the accompanying prospectus, including the information incorporated by reference in this prospectus supplement and the accompanying prospectus and the information included in any free writing prospectus that we have authorized for use in connection with this offering, including the information set forth in the section titled “Risk Factors” in this prospectus supplement beginning on page S-8.

Overview

Celsion is a fully-integrated oncology drug development company focused on developing a portfolio of innovative cancer treatments, including directed chemotherapies, immunotherapies and RNA- or DNA-based therapies. Our lead program is ThermoDox[®], a proprietary heat-activated liposomal encapsulation of doxorubicin, currently in Phase III clinical trial for the treatment of primary liver cancer, also known as hepatocellular carcinoma or HCC, and a Phase II clinical trial for the treatment of recurrent chest wall breast cancer. Our pipeline also includes GEN-1 (formerly known as EGEN-001), a DNA-based immunotherapy for the localized treatment of ovarian and brain cancers. We have three platform technologies for the development of treatments for those suffering with difficult-to-treat forms of cancer, novel nucleic acid-based immunotherapies and other anti-cancer DNA or RNA therapies, including TheraPlas[™] and TheraSilence[™]. We are working to develop and commercialize more efficient, effective and targeted oncology therapies based on our technologies, with the goal to develop novel therapeutics that maximize efficacy while minimizing side-effects common to cancer treatments.

ThermoDox[®]

Our lead product, ThermoDox[®], is being evaluated in a Phase III clinical trial, in combination with a standardized radiofrequency ablation (RFA), for primary liver cancer (the OPTIMA study) and a Phase II clinical trial for recurrent chest wall breast cancer (the DIGNITY study). ThermoDox[®] is a liposomal encapsulation of doxorubicin, an approved and frequently used oncology drug for the treatment of a wide range of cancers. Localized heat at mild hyperthermia temperatures (greater than 39.5 degrees Celsius) releases the encapsulated doxorubicin from the liposome enabling high concentrations of doxorubicin to be deposited preferentially in and around the targeted tumor.

The HEAT Study

On January 31, 2013, we announced that ThermoDox[®] in combination with RFA did not meet the primary endpoint, progression free survival (PFS), of a Phase III clinical trial enrolling 701 patients with primary liver cancer, which we called the HEAT study. Specifically, we determined, after conferring with the HEAT study independent Data Monitoring Committee, that the HEAT study did not meet the goal of demonstrating persuasive evidence of clinical effectiveness that could form the basis for regulatory approval in the population chosen for the HEAT study. In the trial, ThermoDox[®] was well-tolerated with no unexpected serious adverse events. Following the announcement of the HEAT study results, we continue to follow patients for overall survival, the secondary endpoint of the HEAT study, on a quarterly basis. We have conducted a comprehensive analysis of the data from the HEAT study to assess the future strategic value of ThermoDox[®]. In April 2013, we announced the deferral of expenses associated with our Phase II study of ThermoDox[®] in combination with RFA for the treatment of colorectal liver metastases (the ABLATE study) until such time as we finalize our plans for the continuation of our development program with ThermoDox[®] in HCC.

The data from the HEAT study post-hoc analysis suggest that ThermoDox[®] may substantially improve overall survival, when compared to the control group, in patients if their lesions undergo standardized RFA treatment for a lesion greater than three centimeters in diameter for 45 minutes or more. Data from seven overall survival sweeps have been conducted since the top line PFS data from the HEAT study were announced in January 2013, with each data set showing progressive improvement in statistical significance. The most recent post-hoc overall survival analysis data from the HEAT study as of January 15, 2015, announced in February 2015, demonstrated that in a large, well-bounded subgroup of patients (n=285, 41 percent of the study patients), the combination of ThermoDox[®] and standardized RFA provided a 59 percent improvement in overall survival compared to optimized RFA alone.

The Hazard Ratio at this latest quarterly overall survival analysis is 0.628 (95 percent CI 0.420 - 0.939) with a p-value of 0.02. These findings apply to patients with single HCC lesions (64.4 percent of the HEAT study population) from both size cohorts of the HEAT study (3-5 cm and 5-7 cm) and represent a subgroup of 285 patients. Median overall survival for this subgroup has not yet been reached and this information should be viewed with caution since it is based on a retrospective analysis of a subgroup. We may choose to end this analysis of overall survival once the median is reached for both arms of the study. We also completed computational modeling with supplementary preclinical animal studies supporting the relationship between heating duration and clinical outcomes.

The OPTIMA Study

On February 24, 2014, we announced that the United States Food and Drug Administration (FDA), after its customary 30-day review period, provided clearance for the OPTIMA study, which is a pivotal, double-blind, placebo-controlled Phase III trial of ThermoDox[®], in combination with standardized RFA, for the treatment of primary liver cancer. The trial design of the OPTIMA study is based on the comprehensive analysis of data from the HEAT study. We launched the OPTIMA study in the first half of 2014. The OPTIMA study was designed with extensive input from globally recognized HCC researchers and clinicians and after receiving formal written consultation from the FDA. The OPTIMA study is expected to enroll up to 550 patients globally at up to 100 sites in the United States, Europe, China and other Asia Pacific regions, and will evaluate ThermoDox[®] in combination with standardized RFA, which will require a minimum of 45 minutes across all investigators and clinical sites for treating lesions three to seven centimeters, versus standardized RFA alone. The primary endpoint for this clinical trial is overall survival, and the secondary endpoints are progression free survival and safety. The statistical plan calls for two interim efficacy analyses by an independent Data Monitoring Committee.

In addition, we met with the China State Food and Drug Administration in 2014 to discuss the inclusion in the OPTIMA study of a minimum patient enrollment requirement to support the ThermoDox[®]'s registration in China. Based on those discussions, we have submitted an application for accelerated approval of the OPTIMA study in China. We also filed a request for a centralized Voluntary Harmonization Procedure (VHP) in Europe, which provides for the assessment of multinational clinical trial applications across several European countries, including Germany, Italy and Spain. Our request for a VHP in Europe was approved on October 23, 2014.

The DIGNITY Study

On April 15, 2015, we announced positive interim data from our ongoing DIGNITY study, which is an open-label, dose-escalating Phase II trial of ThermoDox[®] in patients with recurrent chest wall (RCW) breast cancer. The trial is designed to enroll 20 patients at several clinical sites in the United States and is evaluating ThermoDox[®] in combination with mild hyperthermia. Of the 16 patients enrolled and treated, twelve were eligible for evaluation of efficacy. Based on data available to date, approximately 67 percent of the patients experienced a stabilization of their highly refractory disease with a local response rate of 58 percent observed in the twelve evaluable patients, notably five complete responses, two partial responses and one patient with stable disease. We expect to complete the patient enrollment in this trial in the third quarter of 2015.

Acquisition of EGEN Assets

On June 20, 2014, we completed the acquisition of substantially all of the assets of Egen, Inc., an Alabama corporation, which has changed its company name to EGWU, Inc. after the closing of the acquisition (EGEN), pursuant to an asset purchase agreement dated as of June 6, 2014, by and between EGEN and Celsion (the purchase agreement). CLSN Laboratories, Inc., a Delaware corporation and a wholly-owned subsidiary of Celsion (CLSN Laboratories), acquired all of EGEN's right, title and interest in and to substantially all of the assets of EGEN, including cash and cash equivalents, patents, trademarks and other intellectual property rights, clinical data, certain contracts, licenses and permits, equipment, furniture, office equipment, furnishings, supplies and other tangible personal property. In addition, CLSN Laboratories assumed certain specified liabilities of EGEN, including the liabilities arising out of the acquired contracts and other assets relating to periods after the closing date.

The total purchase price for the asset acquisition is up to \$44.4 million, including potential future earnout payments of up to \$30.4 million contingent upon achievement of certain earnout milestones set forth in the purchase agreement. At the closing, we paid approximately \$3.0 million in cash after the expense adjustment and issued 2,712,188 shares of our common stock to EGEN. The shares of common stock were issued in a private transaction exempt from registration under the Securities Act of 1933, as amended, pursuant to Section 4(2) thereof. In addition, 670,070 shares of common stock were held back by us at the closing and are issuable to EGEN on or after August 2, 2016 pending certain potential adjustments for expenses or in relation to EGEN's indemnification obligations under the purchase agreement.

The earnout payments of up to \$30.4 million will become payable, in cash, shares of our common stock or a combination thereof, at our option, as follows:

\$12.4 million will become payable upon achieving certain specified development milestones relating to an ovarian cancer study of GEN-1 (formerly known as EGEN-001) to be conducted by us or our subsidiary;

\$12.0 million will become payable upon achieving certain specified development milestones relating to a GEN-1 glioblastoma multiforme brain cancer study to be conducted by us or our subsidiary; and

up to \$6.0 million will become payable upon achieving certain specified development milestones relating to the TheraSilence™ technology acquired from EGEN in the acquisition.

Our obligations to make the earnout payments will terminate on the seventh anniversary of the closing date.

In the acquisition, we purchased GEN-1 (formerly known as EGEN-001), a DNA-based immunotherapy for the localized treatment of ovarian and brain cancers, and three platform technologies for the development of treatments for those suffering with difficult-to-treat forms of cancer, novel nucleic acid-based immunotherapies and other anti-cancer DNA or RNA therapies, including TheraPlas™ and TheraSilence™.

GEN-1

GEN-1 is a DNA-based immunotherapeutic product for the localized treatment of ovarian and brain cancers by intraperitoneally administering an Interleukin-12 (IL-12) plasmid formulated with our proprietary TheraPlas™ delivery system. In this DNA-based approach, the immunotherapy is combined with a standard chemotherapy drug, which can potentially achieve better clinical outcomes than with chemotherapy alone. We believe that increases in IL-12 concentrations at tumor sites for several days after a single administration could create a potent immune environment against tumor activity and that a direct killing of the tumor with concomitant use of cytotoxic chemotherapy could result in a more robust and durable antitumor response than chemotherapy alone.

In February 2015, we announced that the FDA had accepted, without comment, a Phase I dose-escalation clinical trial protocol of GEN-1 in combination with the standard of care for the treatment of newly-diagnosed ovarian cancer patients who will undergo neoadjuvant chemotherapy. The clinical trial will seek to identify a safe, tolerable and potentially therapeutically active dose of GEN-1 while maximizing an immune response. The trial is designed to enroll three to six patients per dose level and will evaluate safety and efficacy and attempt to define an optimal dose to carry forward into a Phase II trial. We expect to initiate enrollment for the trial in the second half of 2015 at five to six

U.S. clinical centers.

In April 2015, we announced that we plan to expand the ovarian cancer development program to include a Phase 1 dose escalating trial evaluating GEN-1 in combination with Avastin® and Doxil® in platinum-resistant ovarian cancer patients. We intend to conduct additional preclinical studies to support an Investigational New Drug filing with the FDA for this new Phase 1 combination study, which will be designed to optimize the dosing regimen for GEN-1 in combination with Avastin®.

In May 2015, we announced results from a Phase Ib trial combining GEN-1 with pegylated doxorubicin. The findings demonstrated an overall clinical benefit at the highest dose level of 86% (PR=29% and SD=57%). GEN-1 was well tolerated, with no dose limiting toxicities and no overlapping toxicities between GEN-1, its subsequent immune system activation and pegylated doxorubicin.

TheraPlas™ Technology Platform

TheraPlas™ is a technology platform for the delivery of DNA and messenger RNA (mRNA) therapeutics via synthetic non-viral carriers and is capable of providing cell transfection for double-stranded DNA plasmids and large therapeutic RNA segments such as mRNA. There are two components of a TheraPlas™ system, including a plasmid DNA or mRNA payload encoding a therapeutic protein and a delivery system. The delivery system is designed to protect the DNA or RNA from degradation and promote trafficking into cells and through intracellular compartments. We designed the delivery system of TheraPlas™ by chemically modifying the low molecular weight polymer to improve its gene transfer activity without increasing toxicity. We believe that TheraPlas™ is a viable alternative to current approaches to gene delivery due to several distinguishing characteristics, including enhanced molecular versatility that allows for complex modifications to improve activity and safety.

S-4

TheraSilence™ Technology Platform

TheraSilence™ is a technology platform for the delivery of synthetically-generated inhibitory RNA (RNAi), such as small inhibitory RNAs (siRNAs), microRNAs, microRNA mimics, and related molecules that can regulate protein expression at the transcript level by exploiting endogenous cell mechanisms. RNAi-based therapies have the potential for targeting the disease-related genes with a high degree of specificity, including the target genes that have been widely identified as “non-druggable.” The TheraSilence™ technology seeks to address the primary obstacle to nucleic acid-based therapeutics, which is the efficient delivery of RNAs to target cells. Specifically, a delivery system needs to be able to protect the RNAi from nuclease degradation, transfer the molecule across the cellular membranes and release the material so that it can be available to the endogenous RNA silencing machinery. We have developed proprietary, novel structures that we believe are able to interact with the RNAi molecules forming protective nanoparticles that can be readily taken up into cells. In addition, these systems are chemically flexible and amenable to attaching tissue-targeted ligands, in-vivo stabilizing agents and other functional moieties which can tailor a formulation for a particular application and delivery modality. We believe that these features can provide high specificity for RNAi delivery to select tissue, enhance stability and reduce in-vivo toxicity. On May 21, 2015, we reported data from a preclinical study in which RNA formulated with the TheraSilence™ delivery system resulted in preferential expression level in the lungs in non-human primates and was well tolerated at the two dose levels as determined by safety analysis including complete blood cell count, blood chemistry, histopathology, interferon response and complement activation.

Business Strategy

We have not generated and do not expect to generate any revenue from product sales in the next several years, if at all, other than minimal revenue from the sale of reagent products we acquired from EGEN. An element of our business strategy has been to pursue, as resources permit, the research and development of a range of product candidates for a variety of indications. We may also evaluate licensing cancer products from third parties for cancer treatments to expand our product pipeline. This is intended to allow us to diversify the risks associated with our research and development expenditures. However, there can be no assurance that we will be able to develop and maintain a broad range of product candidates. To the extent we are unable to maintain a broad range of product candidates, our dependence on the success of one or a few product candidates would increase and results such as those announced in relation to the HEAT study on January 31, 2013 will have a more significant impact on our financial prospects, financial condition and market value. We will assess our product pipeline and research and development priorities. We may also consider and evaluate strategic alternatives, including investment in, or acquisition of, complementary businesses, technologies or products. As demonstrated by the HEAT study results, drug research and development is an inherently uncertain process and there is a high risk of failure at every stage prior to approval. The timing and the outcome of clinical results is extremely difficult to predict. Clinical development successes and failures can have a disproportionate positive or negative impact on our scientific and medical prospects, financial prospects, financial condition and market value.

Our current business strategy includes the possibility of entering into collaborative arrangements with third parties to complete the development and commercialization of our product candidates. In the event that third parties take over the clinical trial process for one or more of our product candidates, the estimated completion date would largely be under the control of that third party rather than us. We cannot forecast with any degree of certainty which proprietary products or indications, if any, will be subject to future collaborative arrangements, in whole or in part, and how such arrangements would affect our development plan or capital requirements. We may also apply for subsidies, grants or government or agency-sponsored studies that could reduce our development costs.

As a result of the uncertainties discussed above, among others, we are unable to estimate the duration and completion costs of our research and development projects or when, if ever, and to what extent we will receive cash inflows from the commercialization and sale of a product. Our inability to complete our research and development projects in a timely manner or to obtain positive results in our clinical trials, as well as any failure to enter into collaborative agreements when appropriate, could significantly increase our capital requirements and could adversely impact our liquidity. While our estimated future capital requirements are uncertain and could increase or decrease as a result of many factors, including the extent to which we choose to advance our research, development and clinical trials or whether we are in a position to pursue manufacturing or commercialization activities, it is clear we will need significant additional capital to develop our product candidates through clinical development, manufacturing and commercialization. We do not know whether we will be able to access additional capital when needed or on terms favorable to us or our stockholders. Our inability to raise additional capital, or to do so on terms reasonably acceptable to us, would jeopardize the future success of our business.

Corporate Information

We were founded in 1982 and are a Delaware corporation. Our shares of common stock trade on The NASDAQ Capital Market under the symbol "CLSN." Our principal executive offices are located at 997 Lenox Drive, Suite 100, Lawrenceville, New Jersey 08648. Our telephone number is (609) 896-9100 and our website is www.celsion.com. The information available on or through our website is not part of, nor incorporated by reference into, this prospectus supplement or the accompanying prospectus, and should not be relied upon.

S-6

THE OFFERING

Common stock offered by us 3,000,000 shares

Common stock to be outstanding before this offering 19,995,714 shares (as more fully described in the notes following this table)

Common stock to be outstanding after this offering 22,995,714 shares (as more fully described in the notes following this table)

Manner of offering Registered direct offering. See “Plan of Distribution” on page S-28 of this prospectus supplement.

Use of proceeds We currently intend to use the net proceeds from this offering for general corporate purposes, including research and development activities, capital expenditures and working capital. We may also use all or a portion of the net proceeds from this offering to fund possible investments in, or acquisitions of, complementary businesses, technologies or products, but we currently have no agreements or commitments with respect to any investment or acquisition. See “Use of Proceeds” on page S-25 of this prospectus supplement.

NASDAQ Capital Market symbol CLSN

Risk factors Investing in our securities involves a high degree of risk. See “Risk Factors” beginning on page S-8 of this prospectus supplement.

Concurrent private placement In a concurrent private placement, we are selling to each purchaser of shares of our common stock in this offering a warrant to purchase 0.65 share of our common stock for each share of our common stock purchased in this offering. Each warrant will be exercisable at any time on or after the date of issuance and until the five-year anniversary of the date of issuance. Each warrant will be exercisable at an exercise price of \$2.60 per share of our common stock. The warrants and the shares of our common stock issuable upon the exercise of the warrants are not being registered under the Securities Act, are not being offered pursuant to this prospectus supplement and the accompanying prospectus and are being offered pursuant to the exemption provided in Section 4(a)(2) under the Securities Act and Rule 506(b) promulgated thereunder. See “Private Placement Transaction.”

The number of shares of our common stock shown above to be outstanding immediately after this offering is based on 19,995,714 shares outstanding as of March 31, 2015, and excludes, as of such date:

2,256,958 shares of our common stock subject to outstanding options having a weighted average exercise price of \$5.92 per share, and 41,518 shares of common stock subject to outstanding non-vested restricted stock awards with a weighted average grant date fair value of \$3.48;

1,275,294 shares of our common stock reserved for future issuance pursuant to our existing stock incentive plans;

3,944,675 shares of our common stock issuable upon exercise of warrants outstanding as of March 31, 2015, having a weighted average exercise price of \$8.24 per share;

up to 670,070 shares of common stock held back by us at the closing of the acquisition of substantially all of the assets of Egen, Inc., an Alabama corporation which has changed its company name to EGWU, Inc. after the closing of the acquisition (EGEN), and shares of common stock that we may be required to issue in the future, subject to the requisite approval of our stockholders, for earnout payments of up to \$30.4 million upon achievement, if any, of the earnout milestones set forth in the asset purchase agreement dated as of June 6, 2014, by and between EGEN and us;

102,389 shares of our common stock held as treasury stock; and

1,950,000 shares of our common stock issuable upon exercise of the warrants to be issued in the concurrent private placement, having an exercise price of \$2.60 per share. See "Private Placement Transaction."

RISK FACTORS

Investing in our securities involves a high degree of risk. Before deciding whether to invest in our securities, you should consider carefully the risks discussed below, together with the risks under the heading “Risk Factors” beginning on page 18 under Part I, Item IA of our Annual Report on Form 10-K for the fiscal year ended December 31, 2014, filed with the Securities and Exchange Commission on March 12, 2015, and any subsequent Quarterly Report on Form 10-Q, which are incorporated by reference into this prospectus supplement and the accompanying prospectus, as well as the other information in this prospectus supplement, the accompanying prospectus, the information and documents incorporated by reference and in any free writing prospectus that we have authorized for use in connection with this offering. If any of the identified risks actually occur, they could materially adversely affect our business, financial condition, operating results or prospects and the trading price of our securities. Additional risks and uncertainties that we do not presently know or that we currently deem immaterial may also impair our business, financial condition, operating results and prospects and the trading price of our securities.

RISKS RELATED TO OUR BUSINESS

We have a history of significant losses from continuing operations and expect to continue such losses for the foreseeable future.

Since our inception, our expenses have substantially exceeded our revenue, resulting in continuing losses and an accumulated deficit of \$202 million at March 31, 2015. For the years ended December 31, 2014, 2013, 2012 and the three months ended March 31, 2015, we incurred a net loss of \$25.5 million, \$12.9 million, \$26.6 million and \$7.0 million, respectively. We currently have no product revenue and do not expect to generate any product revenue for the foreseeable future other than through the sale of our proprietary reagent products for life science research, which products are based on our newly acquired proprietary delivery platform technologies, TheraPlas™ and TheraSilence™. Because we are committed to continuing our product research, development, clinical trial and commercialization programs, we will continue to incur significant operating losses unless and until we complete the development of ThermoDox®, GEN-1 (formerly known as EGEN-001) and other new product candidates and these product candidates have been clinically tested, approved by the U.S. Food and Drug Administration (FDA) and successfully marketed. The amount of future losses is uncertain. Our ability to achieve profitability, if ever, will depend on, among other things, us or our collaborators successfully developing product candidates, obtaining regulatory approvals to market and commercialize product candidates, manufacturing any approved products on commercially reasonable terms, establishing a sales and marketing organization or suitable third party alternatives for any approved product and raising sufficient funds to finance business activities. If we or our collaborators are unable to develop and commercialize one or more of our product candidates or if sales revenue from any product candidate that receives approval is insufficient, we will not achieve profitability, which could have a material adverse effect on our business, financial condition, results of operations and prospects.

Drug development is an inherently uncertain process with a high risk of failure at every stage of development. Our lead drug candidate failed to meet its primary endpoint in the Phase III HEAT study.

On January 31, 2013, we announced that our lead product ThermoDox[®] in combination with radiofrequency ablation (RFA) failed to meet the primary endpoint of the Phase III clinical trial for primary liver cancer, known as the HEAT study. We have not completed our final analysis of the data and do not know the extent to which, if any, the failure of ThermoDox[®] to meet its primary endpoint in the Phase III trial could impact our other ongoing studies of ThermoDox[®], including a pivotal, double-blind, placebo-controlled Phase III trial of ThermoDox[®] in combination with RFA in primary liver cancer, known as the OPTIMA study, which we launched in the first half of 2014. The trial design of the OPTIMA study is based on the overall survival data from the post-hoc analysis of results from the HEAT study. ThermoDox[®] is also being evaluated in a Phase II clinical trial for recurrent chest wall breast cancer and other preclinical studies.

Preclinical testing and clinical trials are long, expensive and highly uncertain processes and failure can unexpectedly occur at any stage of clinical development, as evidenced by the failure of ThermoDox[®] to meet its primary endpoint in the HEAT study. Drug development is inherently risky and clinical trials take several years to complete. The start or end of a clinical trial is often delayed or halted due to changing regulatory requirements, manufacturing challenges, required clinical trial administrative actions, slower than anticipated patient enrollment, changing standards of care, availability or prevalence of use of a comparator drug or required prior therapy, clinical outcomes including insufficient efficacy, safety concerns, or our own financial constraints. The results from preclinical testing or early clinical trials of a product candidate may not predict the results that will be obtained in later phase clinical trials of the product candidate. We, the FDA or other applicable regulatory authorities may suspend clinical trials of a product candidate at any time for various reasons, including a belief that subjects participating in such trials are being exposed to unacceptable health risks or adverse side effects. We may not have the financial resources to continue development of, or to enter into collaborations for, a product candidate if we experience any problems or other unforeseen events that delay or prevent regulatory approval of, or our ability to commercialize, product candidates. The failure of one or more of our drug candidates or development programs could have a material adverse effect on our business, financial condition and results of operations.

If we do not obtain or maintain FDA and foreign regulatory approvals for our drug candidates on a timely basis, or at all, or if the terms of any approval impose significant restrictions or limitations on use, we will be unable to sell those products and our business, results of operations and financial condition will be negatively affected.

To obtain regulatory approvals from the FDA and foreign regulatory agencies, we must conduct clinical trials demonstrating that our products are safe and effective. We may need to amend ongoing trials or the FDA and foreign regulatory agencies may require us to perform additional trials beyond those we planned. This process generally takes a number of years and requires the expenditure of substantial resources. The time required for completing testing and obtaining approvals is uncertain, and the FDA and foreign regulatory agencies have substantial discretion, at any phase of development, to terminate clinical studies, require additional clinical development or other testing, delay or withhold registration and marketing approval and mandate product withdrawals, including recalls. In addition, undesirable side effects caused by our drug candidates could cause us or regulatory authorities to interrupt, delay or halt clinical trials and could result in a more restricted label or the delay or denial of regulatory approval by regulatory authorities. Even if we receive regulatory approval of a product, the approval may limit the indicated uses for which the drug may be marketed. The failure to obtain timely regulatory approval of product candidates, any product marketing limitations or a product withdrawal would negatively impact our business, results of operations and financial condition.

We do not expect to generate significant revenue for the foreseeable future.

We have devoted our resources to developing a new generation of products and will not be able to market these products until we have completed clinical trials and obtain all necessary governmental approvals. Our lead product candidate, ThermoDox[®], and the product candidates we purchased in our acquisition of substantially all of the assets of Egen, Inc., an Alabama corporation which has changed its company name to EGWU, Inc. after the acquisition (EGEN), are still in various stages of development and trials and cannot be marketed until we have completed clinical testing and obtained necessary governmental approval. Following our announcement on January 31, 2013 that the HEAT study failed to meet its primary endpoint of progression free survival, we continue to follow the patients enrolled in the Heat study to the secondary endpoint, overall survival. Based on the overall survival data from the post-hoc analysis of results from the HEAT study, launched a pivotal, double-blind, placebo-controlled Phase III trial of ThermoDox[®] in combination with RFA in primary liver cancer, known as the OPTIMA study, in the first half of 2014. ThermoDox[®] is currently also being evaluated in a Phase II clinical trial for the treatment of recurrent chest wall breast cancer, known as the Dignity Study, and other preclinical studies. GEN-1 is currently in an early stage of clinical development for the treatment of ovarian cancer. We plan to initiate a Phase I dose escalation clinical trial in combination with the standard of care in neo-adjuvant ovarian cancer in the second half of 2015 and conduct additional preclinical studies to support a Phase I 1 dose escalating trial evaluating GEN-1 in combination with Avastin[®] and Doxil[®] in platinum-resistant ovarian cancer patients. The delivery technology platforms that we purchased from EGEN are in preclinical stages of development. We do not expect to realize any revenue from product sales in the next several years, if at all, other than minimal revenue from the sale of reagent products we acquired from EGEN. We do not expect to realize any revenue from product sales in the next several years, if at all. Accordingly, our revenue sources are, and will remain, extremely limited until our product candidates are clinically tested, approved by the FDA or foreign regulatory agencies and successfully marketed. We cannot guarantee that any of our product

candidates will be successfully tested, approved by the FDA or foreign regulatory agency or marketed, successfully or otherwise, at any time in the foreseeable future or at all.

S-9

We will need to raise substantial additional capital to fund our planned future operations, and we may be unable to secure such capital without dilutive financing transactions. If we are not able to raise additional capital, we may not be able to complete the development, testing and commercialization of our product candidates.

As of March 31, 2015, we had approximately \$30.0 million in cash, cash equivalents and short-term investments. We have substantial future capital requirements to continue our research and development activities and advance our drug candidates through various development stages, including the product candidates and technology platforms that we purchased from EGEN in June 2014. For example, ThermoDox[®] is being evaluated in a Phase III clinical trial in combination with RFA for the treatment of primary liver cancer, a Phase II clinical trial for the treatment of recurrent chest wall breast cancer and other preclinical studies. We plan to initiate a Phase I dose escalation clinical trial in combination with the standard of care in neo-adjuvant ovarian cancer in the second half of 2015 and conduct additional preclinical studies to support a Phase I 1 dose escalating trial evaluating GEN-1 in combination with Avastin[®] and Doxil[®] in platinum-resistant ovarian cancer patients. The delivery technology platforms that we purchased from EGEN are in preclinical stages of development. We will continue to conduct additional analyses of the data from the HEAT study to assess the future strategic value of ThermoDox[®] and are performing sub-group analysis of the Chinese cohort of patients in the HEAT study and other activities for further development of ThermoDox[®] for mainland China, Hong Kong and Macau. To complete the development and commercialization of our product candidates, we will need to raise substantial amounts of additional capital to fund our operations. Our future capital requirements will depend upon numerous unpredictable factors, including, without limitation, the cost, timing, progress and outcomes of clinical studies and regulatory reviews of our proprietary drug candidates, our efforts to implement new collaborations, licenses and strategic transactions, general and administrative expenses, capital expenditures and other unforeseen uses of cash. We do not have any committed sources of financing and cannot assure you that alternate funding will be available in a timely manner, on acceptable terms or at all. We may need to pursue dilutive equity financings, such as the issuance of shares of common stock, convertible debt or other convertible or exercisable securities. Such dilutive equity financings could dilute the percentage ownership of our current common stockholders and could significantly lower the market value of our common stock. In addition, a financing could result in the issuance of new securities that may have rights, preferences or privileges senior to those of our existing stockholders.

If we are unable to obtain additional capital on a timely basis or on acceptable terms, we may be required to delay, reduce or terminate our research and development programs and preclinical studies or clinical trials, if any, limit strategic opportunities or undergo corporate restructuring activities. We also could be required to seek funds through arrangements with collaborators or others that may require us to relinquish rights to some of our technologies, product candidates or potential markets or that could impose onerous financial or other terms. Furthermore, if we cannot fund our ongoing development and other operating requirements, particularly those associated with our obligations to conduct clinical trials under our licensing agreements, we will be in breach of these licensing agreements and could therefore lose our license rights, which could have material adverse effects on our business.

Failure to successfully integrate the assets we acquired from EGEN in June 2014 into our operations could adversely affect our ability to develop and commercialize product candidates or negatively impact our business,

results of operations and financial conditions.

On June 20, 2014, we completed the acquisition of substantially all of the assets of EGEN, a privately-held biopharmaceutical company focused on the development of nucleic acid-based therapeutics for the treatment of cancer and other difficult to treat diseases. The acquisition included GEN-1 and its therapeutic platform technologies, TheraPlas™ for delivery of DNA and mRNA, and TheraSilence™ for delivery of RNA. The success of the EGEN acquisition, including the realization of anticipated benefits and cost savings, will depend, in part, on our ability to combine successfully the business we acquired from EGEN with the business of Celsion. Our integration of the operations and product candidates acquired requires significant efforts, including the coordination of research and development, manufacturing, finance, information technologies and management and administration. These integration efforts will result in additional expenses and require significant time and dedication from management, and may divert management attention and resources. The integration may be more difficult, costly or time consuming than expected. It is possible that the integration process could result in the loss of key employees or the disruption of our ongoing business or that the alignment of standards, controls, procedures and policies may adversely affect the combined company's ability to maintain relationships with suppliers, manufacturers, other vendors or employees or to fully achieve the anticipated benefits and cost savings of the transaction.

In addition, the EGEN acquisition may result in our assumption of material unknown or unexpected liabilities. If we experience difficulties with the integration process, the anticipated benefits of the transaction may not be realized fully or at all, or may take longer to realize than expected. Factors that will affect the success of the acquisition include our ability to execute our business strategy, results of clinical trials and regulatory approvals related to the acquired product candidates and platform technologies, our ability to adequately fund acquired in-process research and development projects and retain key employees, as well as our ability to achieve financial and operational synergies with the acquired business, such as by achieving cost savings and effectively developing product candidates. Our failure to successfully manage and coordinate the growth of our newly acquired business could have a material adverse impact on our business, results of operations and financial condition. In addition, we cannot be certain that the product candidates we acquired will be approved for marketing and commercialization, become profitable or remain so or that we will realize operational cost savings or other expected synergies of the acquisition. If the acquisition and integration are not successful, we may record related asset impairment charges in the future.

We have incurred, and will continue to incur, significant costs in connection with our acquisition of substantially all of the assets of EGEN.

We have incurred a number of non-recurring costs associated with our integration of the assets purchased from EGEN. These costs and expenses included the incurrence of \$5.0 million of new indebtedness and approximately \$1.4 million in financial advisory, legal, accounting, consulting and other advisory fees and expenses, reorganization and restructuring costs, severance and employee benefit-related expenses, filing fees, printing expenses and other related charges. We expect to continue to incur costs and expenses in connection with the integration of the assets and operations. There are also a large number of processes, policies, procedures, operations, technologies and systems that must be integrated and implemented in connection with the acquisition. There are many factors beyond our control that could affect the total amount or the timing of integration and implementation expense, and we may incur unanticipated expense in connection with the EGEN acquisition. These costs and expenses could, particularly in the near term, exceed the cost savings that we expect to achieve from the elimination of duplicative expenses and the realization of economies of scale, other efficiencies and cost savings, which benefit may not be achieved in the near term or at all.

We may not successfully engage in future strategic transactions, which could adversely affect our ability to develop and commercialize product candidates, impact our cash position, increase our expense and present significant distractions to our management.

In the future, we may consider other strategic alternatives intended to further the development of our business, which may include acquiring businesses, technologies or products, out- or in-licensing product candidates or technologies or entering into a business combination with another company. Any strategic transaction may require us to incur non-recurring or other charges, increase our near- and long-term expenditures and pose significant integration or implementation challenges or disrupt our management or business. These transactions would entail numerous operational and financial risks, including exposure to unknown liabilities, disruption of our business and diversion of our management's time and attention in order to manage a collaboration or develop acquired products, product candidates or technologies, incurrence of substantial debt or dilutive issuances of equity securities to pay transaction consideration or costs, higher than expected collaboration, acquisition or integration costs, write-downs of assets or goodwill or impairment charges, increased amortization expenses, difficulty and cost in facilitating the collaboration or combining the operations and personnel of any acquired business, impairment of relationships with key suppliers, manufacturers or customers of any acquired business due to changes in management and ownership and the inability to retain key employees of any acquired business. Accordingly, although there can be no assurance that we will undertake or successfully complete any transactions of the nature described above, any transactions that we do complete may be subject to the foregoing or other risks and have a material adverse effect on our business, results of operations, financial condition and prospects. Conversely, any failure to enter any strategic transaction that would be beneficial to us could delay the development and potential commercialization of our product candidates and have a negative impact on the competitiveness of any product candidate that reaches market.

Strategic transactions, such as acquisitions, partnerships and collaborations, including the EGEN acquisition, involve numerous risks, including:

the failure of markets for the products of acquired businesses, technologies or product lines to develop as expected;

uncertainties in identifying and pursuing acquisition targets;

the challenges in achieving strategic objectives, cost savings and other benefits expected from acquisitions;

S-11

the risk that the financial returns on acquisitions will not support the expenditures incurred to acquire such businesses or the capital expenditures needed to develop such businesses;

difficulties in assimilating the acquired businesses, technologies or product lines;

the failure to successfully manage additional business locations, including the additional infrastructure and resources necessary to support and integrate such locations;

the existence of unknown product defects related to acquired businesses, technologies or product lines that may not be identified due to the inherent limitations involved in the due diligence process of an acquisition;

the diversion of management's attention from other business concerns;

risks associated with entering markets or conducting operations with which we have no or limited direct prior experience;

risks associated with assuming the legal obligations of acquired businesses, technologies or product lines;

risks related to the effect that internal control processes of acquired businesses might have on our financial reporting and management's report on our internal control over financial reporting;

the potential loss of key employees related to acquired businesses, technologies or product lines; and

the incurrence of significant exit charges if products or technologies acquired in business combinations are unsuccessful.

We may never realize the perceived benefits of the EGEN acquisition or potential future transactions. We cannot assure you that we will be successful in overcoming problems encountered in connection with any transactions, and our inability to do so could significantly harm our business, results of operations and financial condition. These transactions could dilute a stockholder's investment in us and cause us to incur debt, contingent liabilities and amortization/impairment charges related to intangible assets, all of which could materially and adversely affect our business, results of operations and financial condition. In addition, our effective tax rate for future periods could be negatively impacted by the EGEN acquisition or potential future transactions.

Our business depends on license agreements with third parties to permit us to use patented technologies. The loss of any of our rights under these agreements could impair our ability to develop and market our products.

Our success will depend, in a substantial part, on our ability to maintain our rights under license agreements granting us rights to use patented technologies. For instance, we are party to license agreements with Duke University, under which we have exclusive rights to commercialize medical treatment products and procedures based on Duke's thermo-sensitive liposome technology. The Duke University license agreement contains a license fee, royalty and research support provisions, testing and regulatory milestones, and other performance requirements that we must meet by certain deadlines. Additionally, we have a joint research agreement with Philips Healthcare, a division of Royal Philips Electronics, to evaluate the combination of Philips' high intensity focused ultrasound (HIFU) with ThermoDox® to determine the potential of this combination to treat a broad range of cancers. As part of the assets we acquired from EGEN in June 2014, we became party to a license agreement with The Wistar Institute of Anatomy and Biology pursuant to which we in-license certain technologies use in the development of our newly acquired proprietary delivery platform technologies, TheraPlas™ and TheraSilence™. If we breach any provisions of the license and research agreements, we may lose our ability to use the subject technology, as well as compensation for our efforts in developing or exploiting the technology. Any such loss of rights and access to technology could have a material adverse effect on our business.

Further, we cannot guarantee that any patent or other technology rights licensed to us by others will not be challenged or circumvented successfully by third parties, or that the rights granted will provide adequate protection. We may be required to alter any of our potential products or processes, or enter into a license and pay licensing fees to a third party or cease certain activities. There can be no assurance that we can obtain a license to any technology that we determine we need on reasonable terms, if at all, or that we could develop or otherwise obtain alternate technology. If a license is not available on commercially reasonable terms or at all, our business, results of operations, and financial condition could be significantly harmed and we may be prevented from developing and commercializing the product. Litigation, which could result in substantial costs, may also be necessary to enforce any patents issued to or licensed by us or to determine the scope and validity of others' claimed proprietary rights.

If any of our pending patent applications do not issue, or are deemed invalid following issuance, we may lose valuable intellectual property protection.

The patent positions of pharmaceutical and biotechnology companies, such as ours, are uncertain and involve complex legal and factual issues. We own various U.S. and international patents and have pending U.S. and international patent applications that cover various aspects of our technologies. There can be no assurance that patents that have issued will be held valid and enforceable in a court of law through the entire patent term. Even for patents that are held valid and enforceable, the legal process associated with obtaining such a judgment is time consuming and costly. Additionally, issued patents can be subject to opposition, interferences or other proceedings that can result in the revocation of the patent or maintenance of the patent in amended form (and potentially in a form that renders the patent without commercially relevant or broad coverage). Further, our competitors may be able to circumvent and otherwise design around our patents. Even if a patent is issued and enforceable, because development and commercialization of pharmaceutical products can be subject to substantial delays, patents may expire early and provide only a short period of protection, if any, following the commercialization of products encompassed by our patents. We may have to participate in interference proceedings declared by the U.S. Patent and Trademark Office, which could result in a loss of the patent or substantial cost to us.

We have filed patent applications, and plan to file additional patent applications, covering various aspects of our technologies and our proprietary product candidates. There can be no assurance that the patent applications for which we apply would actually issue as patents, or do so with commercially relevant or broad coverage. The coverage claimed in a patent application can be significantly reduced before the patent is issued. The scope of our claim coverage can be critical to our ability to enter into licensing transactions with third parties and our right to receive royalties from our collaboration partnerships. Since publication of discoveries in scientific or patent literature often lags behind the date of such discoveries, we cannot be certain that we were the first inventor of inventions covered by our patents or patent applications. In addition, there is no guarantee that we will be the first to file a patent application directed to an invention.

An adverse outcome in any judicial proceeding involving intellectual property, including patents, could subject us to significant liabilities to third parties, require disputed rights to be licensed from or to third parties or require us to cease using the technology in dispute. In those instances where we seek an intellectual property license from another, we may not be able to obtain the license on a commercially reasonable basis, if at all, thereby raising concerns on our ability to freely commercialize our technologies or products.

We rely on trade secret protection and other unpatented proprietary rights for important proprietary technologies, and any loss of such rights could harm our business, results of operations and financial condition.

We rely on trade secrets and confidential information that we seek to protect, in part, by confidentiality agreements with our corporate partners, collaborators, employees and consultants. We cannot assure you that these agreements are

adequate to protect our trade secrets and confidential information or will not be breached or, if breached, we will have adequate remedies. Furthermore, others may independently develop substantially equivalent confidential and proprietary information or otherwise gain access to our trade secrets or disclose such technology. Any loss of trade secret protection or other unpatented proprietary rights could harm our business, results of operations and financial condition.

S-13

Our products may infringe patent rights of others, which may require costly litigation and, if we are not successful, could cause us to pay substantial damages or limit our ability to commercialize our products.

Our commercial success depends on our ability to operate without infringing the patents and other proprietary rights of third parties. There may be third party patents that relate to our products and technology. We may unintentionally infringe upon valid patent rights of third parties. Although we currently are not involved in any material litigation involving patents, a third party patent holder may assert a claim of patent infringement against us in the future. Alternatively, we may initiate litigation against the third party patent holder to request that a court declare that we are not infringing the third party's patent and/or that the third party's patent is invalid or unenforceable. If a claim of infringement is asserted against us and is successful, and therefore we are found to infringe, we could be required to pay damages for infringement, including treble damages if it is determined that we knew or became aware of such a patent and we failed to exercise due care in determining whether or not we infringed the patent. If we have supplied infringing products to third parties or have licensed third parties to manufacture, use or market infringing products, we may be obligated to indemnify these third parties for damages they may be required to pay to the patent holder and for any losses they may sustain. We can also be prevented from selling or commercializing any of our products that use the infringing technology in the future, unless we obtain a license from such third party. A license may not be available from such third party on commercially reasonable terms, or may not be available at all. Any modification to include a non-infringing technology may not be possible or if possible may be difficult or time-consuming to develop, and require revalidation, which could delay our ability to commercialize our products. Any infringement action asserted against us, even if we are ultimately successful in defending against such action, would likely delay the regulatory approval process of our products, harm our competitive position, be expensive and require the time and attention of our key management and technical personnel.

We rely on third parties to conduct all of our clinical trials. If these third parties are unable to carry out their contractual duties in a manner that is consistent with our expectations, comply with budgets and other financial obligations or meet expected deadlines, we may not receive certain development milestone payments or be able to obtain regulatory approval for or commercialize our product candidates in a timely or cost-effective manner.

We rely, and expect to continue to rely, on third-party clinical investigators, clinical research organizations (CROs), clinical data management organizations and consultants to design, conduct, supervise and monitor our clinical trials. Because we do not have the ability to conduct our own clinical trials, we must rely on the efforts of others and have limited control over, and cannot predict accurately, the timing of such trials, the costs associated with such trials or the procedures that are followed for such trials. We do not expect to significantly increase our personnel in the foreseeable future and may continue to rely on third parties to conduct all of our future clinical trials.

If we cannot contract with acceptable third parties on commercially reasonable terms or at all, if these third parties are unable to carry out their contractual duties or obligations in a manner that is consistent with our expectations or meet expected deadlines, if they do not carry out the trials in accordance with budgeted amounts, if the quality or accuracy of the clinical data they obtain is compromised due to their failure to adhere to our clinical protocols or for other

reasons, or if they fail to maintain compliance with applicable government regulations and standards, our clinical trials may be extended, delayed or terminated or may become significantly more expensive, we may not receive development milestone payments when expected or at all, and we may not be able to obtain regulatory approval for or successfully commercialize our product candidates.

In all events, we are responsible for ensuring that each of our clinical trials is conducted in accordance with the general investigational plan and protocols for the trial. The FDA requires clinical trials to be conducted in accordance with good clinical practices, including for conducting, recording and reporting the results of clinical trials to assure that data and reported results are credible and accurate and that the rights, integrity and confidentiality of clinical trial participants are protected. Our reliance on third parties that we do not control does not relieve us of these responsibilities and requirements. Any such event could have a material adverse effect on our business, financial condition, results of operations and prospects.

Because we rely on third party manufacturing and supply partners, our supply of research and development, preclinical and clinical development materials may become limited or interrupted or may not be of satisfactory quantity or quality.

We rely on third party supply and manufacturing partners to supply the materials and components for, and manufacture, our research and development, preclinical and clinical trial drug supplies. We do not own manufacturing facilities or supply sources for such components and materials. There can be no assurance that our supply of research and development, preclinical and clinical development drugs and other materials will not be limited, interrupted, restricted in certain geographic regions or of satisfactory quality or continue to be available at acceptable prices. Suppliers and manufacturers must meet applicable manufacturing requirements and undergo rigorous facility and process validation tests required by FDA and foreign regulatory authorities in order to comply with regulatory standards, such as current Good Manufacturing Practices. In the event that any of our suppliers or manufacturers fails to comply with such requirements or to perform its obligations to us in relation to quality, timing or otherwise, or if our supply of components or other materials becomes limited or interrupted for other reasons, we may be forced to manufacture the materials ourselves, for which we currently do not have the capabilities or resources, or enter into an agreement with another third party, which we may not be able to do on reasonable terms, if at all.

Our business is subject to numerous and evolving state, federal and foreign regulations and we may not be able to secure the government approvals needed to develop and market our products.

Our research and development activities, pre-clinical tests and clinical trials, and ultimately the manufacturing, marketing and labeling of our products, are all subject to extensive regulation by the FDA and foreign regulatory agencies. Pre-clinical testing and clinical trial requirements and the regulatory approval process typically take years and require the expenditure of substantial resources. Additional government regulation may be established that could prevent or delay regulatory approval of our product candidates. Delays or rejections in obtaining regulatory approvals would adversely affect our ability to commercialize any product candidates and our ability to generate product revenue or royalties.

The FDA and foreign regulatory agencies require that the safety and efficacy of product candidates be supported through adequate and well-controlled clinical trials. If the results of pivotal clinical trials do not establish the safety and efficacy of our product candidates to the satisfaction of the FDA and other foreign regulatory agencies, we will not receive the approvals necessary to market such product candidates. Even if regulatory approval of a product candidate is granted, the approval may include significant limitations on the indicated uses for which the product may be marketed.

We are subject to the periodic inspection of our clinical trials, facilities, procedures and operations and/or the testing of our products by the FDA to determine whether our systems and processes, or those of our vendors and suppliers, are in compliance with FDA regulations. Following such inspections, the FDA may issue notices on Form 483 and warning letters that could cause us to modify certain activities identified during the inspection. A Form 483 notice is generally issued at the conclusion of an FDA inspection and lists conditions the FDA inspectors believe may violate FDA regulations. FDA guidelines specify that a warning letter is issued only for violations of “regulatory significance” for which the failure to adequately and promptly achieve correction may be expected to result in an enforcement action.

Failure to comply with the FDA and other governmental regulations can result in fines, unanticipated compliance expenditures, recall or seizure of products, total or partial suspension of production and/or distribution, suspension of the FDA’s review of product applications, enforcement actions, injunctions and criminal prosecution. Under certain circumstances, the FDA also has the authority to revoke previously granted product approvals. Although we have internal compliance programs, if these programs do not meet regulatory agency standards or if our compliance is deemed deficient in any significant way, it could have a material adverse effect on the Company.

We are also subject to recordkeeping and reporting regulations. These regulations require, among other things, the reporting to the FDA of adverse events alleged to have been associated with the use of a product or in connection with certain product failures.

Labeling and promotional activities also are regulated by the FDA. We must also comply with record keeping requirements as well as requirements to report certain adverse events involving our products. The FDA can impose other post-marketing controls on us as well as our products including, but not limited to, restrictions on sale and use, through the approval process, regulations and otherwise.

Many states in which we do or may do business, or in which our products may be sold, if at all, impose licensing, labeling or certification requirements that are in addition to those imposed by the FDA. There can be no assurance that one or more states will not impose regulations or requirements that have a material adverse effect on our ability to sell our products.

In many of the foreign countries in which we may do business or in which our products may be sold, we will be subject to regulation by national governments and supranational agencies as well as by local agencies affecting, among other things, product standards, packaging requirements, labeling requirements, import restrictions, tariff regulations, duties and tax requirements. There can be no assurance that one or more countries or agencies will not impose regulations or requirements that could have a material adverse effect on our ability to sell our products.

Legislative and regulatory changes affecting the healthcare industry could adversely affect our business.

Political, economic and regulatory influences are subjecting the healthcare industry to potential fundamental changes that could substantially affect our results of operations. There have been a number of government and private sector initiatives during the last few years to limit the growth of healthcare costs, including price regulation, competitive pricing, coverage and payment policies, comparative effectiveness of therapies, technology assessments and managed-care arrangements. It is uncertain whether or when any legislative proposals will be adopted or what actions federal, state, or private payors for health care treatment and services may take in response to any healthcare reform proposals or legislation. We cannot predict the effect healthcare reforms may have on our business and we can offer no assurances that any of these reforms will not have a material adverse effect on our business. These actual and potential changes are causing the marketplace to put increased emphasis on the delivery of more cost-effective treatments. In addition, uncertainty remains regarding proposed significant reforms to the U.S. health care system.

The success of our products may be harmed if the government, private health insurers and other third-party payers do not provide sufficient coverage or reimbursement.

Our ability to commercialize our new cancer treatment systems successfully will depend in part on the extent to which reimbursement for the costs of such products and related treatments will be available from government health administration authorities, private health insurers and other third-party payors. The reimbursement status of newly approved medical products is subject to significant uncertainty. We cannot guarantee that adequate third-party insurance coverage will be available for us to establish and maintain price levels sufficient for us to realize an appropriate return on our investment in developing new therapies. Government, private health insurers and other third-party payors are increasingly attempting to contain healthcare costs by limiting both coverage and the level of reimbursement for new therapeutic products approved for marketing by the FDA. Accordingly, even if coverage and reimbursement are provided by government, private health insurers and third-party payors for uses of our products, market acceptance of these products would be adversely affected if the reimbursement available proves to be unprofitable for health care providers.

Our products may not achieve sufficient acceptance by the medical community to sustain our business.

The commercial success of our products will depend upon their acceptance by the medical community and third-party payers as clinically useful, cost effective and safe. Any of our drug candidates may prove not to be effective in practice. If testing and clinical practice do not confirm the safety and efficacy of our product candidates or even if further testing and clinical practice produce positive results but the medical community does not view these new forms of treatment as effective and desirable, our efforts to market our new products may fail, which would have an adverse effect on our business, financial condition and results of operations.

The commercial potential of a drug candidate in development is difficult to predict. If the market size for a new drug is significantly smaller than we anticipate, it could significantly and negatively impact our revenue, results of operations and financial condition.

It is very difficult to predict the commercial potential of product candidates due to important factors such as safety and efficacy compared to other available treatments, including potential generic drug alternatives with similar efficacy profiles, changing standards of care, third party payor reimbursement standards, patient and physician preferences, the availability of competitive alternatives that may emerge either during the long drug development process or after commercial introduction, and the availability of generic versions of our successful product candidates following approval by government health authorities based on the expiration of regulatory exclusivity or our inability to prevent generic versions from coming to market by asserting our patents. If due to one or more of these risks the market potential for a drug candidate is lower than we anticipated, it could significantly and negatively impact the revenue potential for such drug candidate and would adversely affect our business, financial condition and results of operations.

We have no internal sales or marketing capability. If we are unable to create sales, marketing and distribution capabilities or enter into alliances with others possessing such capabilities to perform these functions, we will not be able to commercialize our products successfully.

We currently have no sales, marketing or distribution capabilities. We intend to market our products, if and when such products are approved for commercialization by the FDA and foreign regulatory agencies, either directly or through other strategic alliances and distribution arrangements with third parties. If we decide to market our products directly, we will need to commit significant financial and managerial resources to develop a marketing and sales force with technical expertise and with supporting distribution, administration and compliance capabilities. If we rely on third parties with such capabilities to market our products, we will need to establish and maintain partnership arrangements, and there can be no assurance that we will be able to enter into third-party marketing or distribution arrangements on acceptable terms or at all. To the extent that we do enter into such arrangements, we will be dependent on our marketing and distribution partners. In entering into third-party marketing or distribution arrangements, we expect to incur significant additional expense and there can be no assurance that such third parties will establish adequate sales and distribution capabilities or be successful in gaining market acceptance for our products and services.

Technologies for the treatment of cancer are subject to rapid change, and the development of treatment strategies that are more effective than our technologies could render our technologies obsolete.

Various methods for treating cancer currently are, and in the future are expected to be, the subject of extensive research and development. Many possible treatments that are being researched, if successfully developed, may not require, or may supplant, the use of our technologies. The successful development and acceptance of any one or more of these alternative forms of treatment could render our technology obsolete as a cancer treatment method.

We may not be able to hire or retain key officers or employees that we need to implement our business strategy and develop our product candidates and business, including those purchased in the EGEN acquisition.

Our success depends significantly on the continued contributions of our executive officers, scientific and technical personnel and consultants, including those retained in the EGEN acquisition, and on our ability to attract additional personnel as we seek to implement our business strategy and develop our product candidates and businesses. Our operations associated with the EGEN acquisition are located in Huntsville, Alabama. Key employees may depart if we fail to successfully manage this additional business location or in relation to any uncertainties or difficulties of integration with Celsion. We cannot guarantee that we will retain key employees to the same extent that we and EGEN retained each of our own employees in the past, which could have a negative impact on our business, results of operations and financial condition. Our integration of EGEN and ability to operate in the fields we acquired from EGEN may be more difficult if we lose key employees. Additionally, as our business and the demands on our key employees expand, we have been, and will continue to be, required to recruit additional qualified employees. The competition for such qualified personnel is intense, and the loss of services of certain key personnel or our inability to

attract additional personnel to fill critical positions could adversely affect our business. Further, we do not carry “key man” insurance on any of our personnel. Therefore, loss of the services of key personnel would not be ameliorated by the receipt of the proceeds from such insurance.

Our success will depend in part on our ability to grow and diversify, which in turn will require that we manage and control our growth effectively.

Our business strategy contemplates growth and diversification. Our ability to manage growth effectively will require that we continue to expend funds to improve our operational, financial and management controls, reporting systems and procedures. In addition, we must effectively expand, train and manage our employees. We will be unable to manage our business effectively if we are unable to alleviate the strain on resources caused by growth in a timely and successful manner. There can be no assurance that we will be able to manage our growth and a failure to do so could have a material adverse effect on our business.

We face intense competition and the failure to compete effectively could adversely affect our ability to develop and market our products.

There are many companies and other institutions engaged in research and development of various technologies for cancer treatment products that seek treatment outcomes similar to those that we are pursuing. We believe that the level of interest by others in investigating the potential of possible competitive treatments and alternative technologies will continue and may increase. Potential competitors engaged in all areas of cancer treatment research in the United States and other countries include, among others, major pharmaceutical, specialized technology companies, and universities and other research institutions. Most of our current and potential competitors have substantially greater financial, technical, human and other resources, and may also have far greater experience than do we, both in pre-clinical testing and human clinical trials of new products and in obtaining FDA and other regulatory approvals. One or more of these companies or institutions could succeed in developing products or other technologies that are more effective than the products and technologies that we have been or are developing, or which would render our technology and products obsolete and non-competitive. Furthermore, if we are permitted to commence commercial sales of any of our products, we will also be competing, with respect to manufacturing efficiency and marketing, with companies having substantially greater resources and experience in these areas.

We may be subject to significant product liability claims and litigation.

Our business exposes us to potential product liability risks inherent in the testing, manufacturing and marketing of human therapeutic products. We presently have product liability insurance limited to \$10 million per incident and \$10 million annually. If we were to be subject to a claim in excess of this coverage or to a claim not covered by our insurance and the claim succeeded, we would be required to pay the claim with our own limited resources, which could have a severe adverse effect on our business. Whether or not we are ultimately successful in any product liability litigation, such litigation would harm the business by diverting the attention and resources of our management, consuming substantial amounts of our financial resources and by damaging our reputation. Additionally, we may not be able to maintain our product liability insurance at an acceptable cost, if at all.

Our internal computer systems, or those of our CROs or other contractors or consultants, may fail or suffer security breaches, which could result in a material disruption of our product development programs.

Despite the implementation of security measures, our internal computer systems and those of our CROs and other contractors and consultants are vulnerable to damage from computer viruses, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failures. Such events could cause interruptions of our operations. For instance, the loss of preclinical data or data from any clinical trial involving our product candidates could result in delays in our development and regulatory filing efforts and significantly increase our costs. To the extent that any disruption or security breach were to result in a loss of, or damage to, our data, or inappropriate disclosure of confidential or proprietary information, we could incur liability and the development of our product candidates could be delayed.

RISKS RELATED TO THIS OFFERING AND OUR SECURITIES

The market price of our common stock has been, and may continue to be volatile and fluctuate significantly, which could result in substantial losses for investors and subject us to securities class action litigation.

The trading price for our common stock has been, and we expect it to continue to be, volatile. Our January 31, 2013 announcement that the HEAT study failed to meet its primary endpoint has resulted in significant volatility and a steep decline in the price of our common stock, a level of decline that could result in securities litigation. Plaintiffs' securities litigation firms have publicly announced that they are investigating potential securities fraud claims that they may wish to make against us. More recently, our acquisition of the assets of EGEN in June 2014 has been followed with increased volatility in the price of our common stock. The price at which our common stock trades depends upon a number of factors, including our historical and anticipated operating results, our financial situation, announcements of technological innovations or new products by us or our competitors, our ability or inability to raise the additional capital we may need and the terms on which we raise it, and general market and economic conditions. Some of these factors are beyond our control. Broad market fluctuations may lower the market price of our common stock and affect the volume of trading in our stock, regardless of our financial condition, results of operations, business or prospect. The closing price of our common stock as reported on The NASDAQ Capital Market had a high price of \$4.57 and a low price of \$2.30 in the 52-week period ended December 31, 2014 and a high price of \$3.15 and a low price of \$2.20 from January 2, 2015 through May 27, 2015. Among the factors that may cause the market price of our common stock to fluctuate are the risks described in this "Risk Factors" section and other factors, including:

results of preclinical and clinical studies of our product candidates or those of our competitors;

regulatory or legal developments in the U.S. and other countries, especially changes in laws and regulations applicable to our product candidates;

actions taken by regulatory agencies with respect to our product candidates, clinical studies, manufacturing process or sales and marketing terms;

introductions and announcements of new products by us or our competitors, and the timing of these introductions or announcements;

announcements by us or our competitors of significant acquisitions or other strategic transactions or capital commitments;

fluctuations in our quarterly operating results or the operating results of our competitors;

variance in our financial performance from the expectations of investors;

changes in the estimation of the future size and growth rate of our markets;

changes in accounting principles or changes in interpretations of existing principles, which could affect our financial results;

failure of our products to achieve or maintain market acceptance or commercial success;

conditions and trends in the markets we serve;

changes in general economic, industry and market conditions;

success of competitive products and services;

changes in market valuations or earnings of our competitors;

changes in our pricing policies or the pricing policies of our competitors;

changes in legislation or regulatory policies, practices or actions;

the commencement or outcome of litigation involving our company, our general industry or both;

recruitment or departure of key personnel;

changes in our capital structure, such as future issuances of securities or the incurrence of additional debt;

actual or anticipated changes in earnings estimates or changes in stock market analyst recommendations regarding our common stock, other comparable companies or our industry generally;

actual or expected sales of our common stock by our stockholders;

acquisitions and financings, including the EGEN acquisition; and

the trading volume of our common stock.

S-19

In addition, the stock markets, in general, The NASDAQ Capital Market and the market for pharmaceutical companies in particular, may experience a loss of investor confidence. Such loss of investor confidence may result in extreme price and volume fluctuations in our common stock that are unrelated or disproportionate to the operating performance of our business, financial condition or results of operations. These broad market and industry factors may materially harm the market price of our common stock and expose us to securities class action litigation. Such litigation, even if unsuccessful, could be costly to defend and divert management's attention and resources, which could further materially harm our financial condition and results of operations.

Investors in this offering will experience substantial dilution in the net tangible book value per share of the common stock issuable upon conversion or exercise of the securities they purchase.

Investors in this offering will suffer substantial dilution in the net tangible book value of our common stock as of March 31, 2015 because each of the purchase price per share for our common stock offered in this offering is higher than the net tangible book value per share of our common stock as of March 31, 2015. See the section titled "Dilution" on page S-26 of this prospectus supplement for a more detailed discussion of the dilution you will incur in this offering. In addition, we have a significant number of options and warrants outstanding which have an exercise price lower than the purchase price per share for the common stock offered in this offering. If the holders of these securities exercise any such securities, the investors will incur further dilution.

We may be unable to maintain compliance with NASDAQ Marketplace Rules which could cause our common stock to be delisted from The NASDAQ Capital Market. This could result in the lack of a market for our common stock, cause a decrease in the value of an investment in us, and adversely affect our business, financial condition and results of operations.

Our common stock is currently listed on The NASDAQ Capital Market. To maintain the listing of our common stock on The NASDAQ Capital Market, we are required to meet certain listing requirements, including, among others, either: (i) a minimum closing bid price of \$1.00 per share, a market value of publicly held shares (excluding shares held by our executive officers, directors and 10% or more stockholders) of at least \$1 million and stockholders' equity of at least \$2.5 million; or (ii) a minimum closing bid price of \$1.00 per share, a market value of publicly held shares (excluding shares held by our executive officers, directors and ten percent or more stockholders) of at least \$1 million and a total market value of listed securities of at least \$35 million. As of May 27, 2015, the closing sale price of our common stock was \$2.60, the total market value of our publicly held shares of our common stock (excluding shares held by our executive officers, directors and ten percent or more stockholders) was approximately \$44.6 million and the total market value of our listed securities was approximately \$52.0 million. There is no assurance that we will continue to meet the minimum closing price requirement and other listing requirements. As of March 31, 2015, we had stockholders' equity of \$26.7 million.

If the closing bid price of our common stock is below \$1.00 per share or the total market value of our publicly held shares of common stock is below \$35 million for 30 consecutive business days, we could be subject to delisting from The NASDAQ Capital Market. If our common stock is delisted, trading of the stock will most likely take place on an over-the-counter market established for unlisted securities, such as the Pink Sheets or the OTC Bulletin Board. An investor is likely to find it less convenient to sell, or to obtain accurate quotations in seeking to buy, our common stock on an over-the-counter market, and many investors may not buy or sell our common stock due to difficulty in accessing over-the-counter markets, or due to policies preventing them from trading in securities not listed on a national exchange or other reasons. In addition, as a delisted security, our common stock would be subject to SEC rules regarding "penny stock," which impose additional disclosure requirements on broker-dealers. The regulations relating to penny stocks, coupled with the typically higher cost per trade to investors in penny stocks due to factors such as broker commissions generally representing a higher percentage of the price of a penny stock than of a higher priced stock, would further limit the ability and willingness of investors to trade in our common stock. For these reasons and others, delisting would adversely affect the liquidity, trading volume and price of our common stock, causing the value of an investment in us to decrease and having an adverse effect on our business, financial condition and results of operations, including our ability to attract and retain qualified executives and employees and to raise capital.

Future sales of our common stock in the public market could cause our stock price to fall.

Sales of a substantial number of shares of our common stock in the public market, or the perception that these sales might occur, could depress the market price of our common stock and could impair our ability to raise capital through the sale of additional equity securities. As of May 27 2015, we had 20,005,186 shares of common stock outstanding, all of which shares were eligible for sale in the public market, subject in some cases to compliance with the requirements of Rule 144, including the volume limitations and manner of sale requirements. As of May 27, 2015, we had outstanding option and restricted stock awards and warrants to purchase 2,398,476 and 3,944,675 shares of common stock, respectively. To the extent these options and warrants are exercised, a significant number of shares will be available for sale into the public market. Furthermore, up to 670,070 shares of common stock held back by us at the closing of the acquisition of substantially all of the assets of EGEN, and shares of common stock for earnout payments of up to \$30.4 million upon achievement, if any, of the earnout milestones in connection with the acquisition may be issued to EGEN in the future in accordance with the terms of the asset purchase agreement between EGEN and us.

Our stockholders may experience significant dilution as a result of future equity offerings or issuances and exercise of outstanding options and warrants.

In order to raise additional capital or pursue strategic transactions, we may in the future offer, issue or sell additional shares of our common stock or other securities convertible into or exchangeable for our common stock, including the issuance of shares of common stock in relation to the achievement, if any, of earnout milestones in connection with the EGEN acquisition. Our stockholders may experience significant dilution as a result of future equity offerings or issuances. Investors purchasing shares or other securities in the future could have rights superior to existing stockholders. As of May 27, 2015, we had a significant number of securities convertible into, or allowing the purchase of, our common stock, including 3,944,675 shares of common stock issuable upon exercise of the outstanding warrants (without taking into account the warrants to be issued by us in the concurrent private placement), 2,398,476 shares of common stock underlying the outstanding options and outstanding restricted stock awards and 1,275,294 shares of common stock reserved for future issuance under our stock incentive plans. Under the Controlled Equity OfferingSM Sales Agreement entered into with Cantor Fitzgerald & Co. on February 1, 2013 (the Sales Agreement), we may offer and sell, from time to time through “at-the-market” offerings, up to an aggregate of \$25.0 million of shares of our common stock. We have sold shares of our common stock generating total gross proceeds of approximately \$7.0 million under the Sales Agreement as of the date of this prospectus supplement. In connection with the offering of shares of common stock covered by this prospectus supplement, we have agreed not to sell shares under the Sales Agreement until the three-month anniversary of the closing date of this offering.

We have broad discretion in the use of the net proceeds from this offering.

Our management will have broad discretion in the application of the net proceeds from this offering and could spend the proceeds in ways with which you may not agree. Accordingly, you will be relying on the judgment of our management with regard to the use of the net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately. We may use the net proceeds to continue or expand our research and development activities or to fund possible investments in, or acquisitions of, complementary businesses, technologies or products. It is possible that the net proceeds will be invested or otherwise used in a way that does not yield a favorable, or any, return for us.

The adverse capital and credit market conditions could affect our liquidity.

Adverse capital and credit market conditions could affect our ability to meet liquidity needs, as well as our access to capital and cost of capital. The capital and credit markets have experienced extreme volatility and disruption in recent years. Our results of operations, financial condition, cash flows and capital position could be materially adversely affected by continued disruptions in the capital and credit markets.

Our ability to use net operating losses to offset future taxable income are subject to certain limitations.

We currently have significant net operating losses (NOLs) that may be used to offset future taxable income. In general, under Section 382 of the Internal Revenue Code of 1986, as amended (the Code), a corporation that undergoes an “ownership change” is subject to limitations on its ability to utilize its pre-change NOLs to offset future taxable income. We annually perform analyses to determine if there were changes in ownership, as defined by Section 382 of the Code that would limit our ability to utilize certain net operating loss and tax credit carry forwards. We determined that we experienced an ownership change, as defined by Section 382, in connection with certain common stock offerings on July 25, 2011, February 5, 2013 and on June 3, 2013. As a result, the utilization of our federal tax net operating loss carry forwards generated prior to the ownership changes is limited. Future changes in our stock ownership, some of which are outside of our control, could result in an ownership change under Section 382 of the Code, which would significantly limit our ability to utilize NOLs to offset future taxable income.

Our effective tax rate may be impacted by a number of factors, including tax effects of the EGEN acquisition.

Our effective tax rate may be impacted by the tax effects of the EGEN acquisition, dispositions, changes to tax laws or regulations, examinations by tax authorities, stock-based compensation, uncertain tax positions, and changes in our ability to realize deferred tax assets. Significant judgment and estimates are required in determining the impact on our effective tax rate related to these items, including whether it is more likely than not that some or all of our deferred tax assets will be realized. Such estimates are subject to uncertainty due to various factors, including the economic environment, industry and market conditions, and the length of time of the projections included in the analyses. If our actual results are less favorable than current estimates, or we revise our estimates downward in future analyses, a valuation allowance may be required related to our deferred tax assets with a corresponding adjustment to earnings in the period in which such determination is made, which could have a material effect on our results of operations.

We have never paid dividends on our common stock in the past and do not anticipate paying cash dividends on our common stock in the foreseeable future.

We have never declared or paid cash dividends on our common stock. We do not anticipate paying any cash dividends on our common stock in the foreseeable future. We currently intend to retain all available funds and any future earnings to fund the development and growth of our business. As a result, capital appreciation, if any, of our common stock will be the sole source of gain for the foreseeable future for holders of our common stock.

Anti-takeover provisions in our charter documents and Delaware law could prevent or delay a change in control.

Our certificate of incorporation and bylaws may discourage, delay or prevent a merger or acquisition that a stockholder may consider favorable by authorizing the issuance of “blank check” preferred stock. This preferred stock may be issued by our board of directors on such terms as it determines, without further stockholder approval. Therefore, our board of directors may issue such preferred stock on terms unfavorable to a potential bidder in the event that our board of directors opposes a merger or acquisition. In addition, our classified board of directors may discourage such transactions by increasing the amount of time necessary to obtain majority representation on our board of directors. Certain other provisions of our bylaws and of Delaware law may also discourage, delay or prevent a third party from acquiring or merging with us, even if such action were beneficial to some, or even a majority, of our stockholders.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

Certain statements contained or incorporated by reference in this prospectus supplement, the accompanying prospectus and any related free writing prospectus constitute “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995 and releases issued by the Securities and Exchange Commission (SEC) and within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. From time to time, we publish forward-looking statements relating to matters such as anticipated financial performance, business prospects, technological developments, new products, research and development activities and other aspects of our present and future business operations as well as similar matters. These statements involve known and unknown risks, uncertainties and other factors that may cause our or our industry’s actual results, levels of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements expressed or implied by such forward-looking statements. Forward-looking statements include, among others:

any statements regarding future operations, plans, regulatory filings or approvals, including the plans and objectives of management for future operations or programs or proposed new products or services;

any statements regarding the performance, or likely performance, or outcomes or economic benefit of any of our research and development activities, proposed or potential clinical trials or new drug filing strategies or timelines, including whether any of our clinical trials will be completed successfully within any specified time period or at all;

any projections of earnings, cash resources, revenue, expense or other financial terms;

any statements regarding the initiation, timing, progress and results of our research and development programs, preclinical studies, any clinical trials and Investigational New Drug application, New Drug Application and other regulatory submissions;

any statements regarding cost and timing of development and testing, capital structure, financial condition, working capital needs and other financial items;

any statements regarding the implementation of our business model and integration of acquired technologies, assets or businesses and existing or future collaborations, mergers, acquisitions or other strategic transactions;

any statements regarding approaches to medical treatment, any introduction of new products by others, any possible licenses or acquisitions of other technologies, assets or businesses, or possible actions by customers, suppliers, strategic partners, potential strategic partners, competitors or regulatory authorities;

any statements regarding development or success of our collaboration arrangements or future payments that may come due to us under these arrangements;

any statements regarding compliance with the listing standards of The NASDAQ Capital Market; and

any statements regarding future economic conditions or performance and any statement of assumptions underlying any of the foregoing.

S-23

In some cases, you can identify forward-looking statements by terminology such as “expect,” “anticipate,” “estimate,” “continue,” “plan,” “believe,” “could,” “intend,” “predict,” “project,” “may,” “should,” “will” and words of similar import regarding expectations. Forward-looking statements are only predictions and actual events or results may differ materially. Although we believe that our expectations are based on reasonable assumptions within the bounds of our current knowledge of our industry, business and operations, we cannot guarantee that actual results will not differ materially from our expectations. In evaluating such forward-looking statements, you should specifically consider various factors, including the risks outlined under the heading “Risk Factors” contained in this prospectus supplement, the accompanying prospectus and any related free writing prospectus, and in our most recent Annual Report on Form 10-K and our most recent Quarterly Report on Form 10-Q, as well as any amendments thereto reflected in subsequent filings with the SEC. The discussion of risks and uncertainties set forth in those filings is not necessarily a complete or exhaustive list of all risks facing us at any particular point in time. We operate in a highly competitive, highly regulated and rapidly changing environment, and our business is in a state of evolution. Therefore, it is likely that over time new risks will emerge and the nature and elements of existing risks will change. It is not possible for management to predict all such risk factors or changes therein or to assess either the impact of all such risk factors on our business or the extent to which any individual risk factor, combination of factors or new or altered factors may cause results to differ materially from those contained in any forward-looking statement. Forward-looking statements represent our estimates and assumptions only as of the date such forward-looking statements are made. You should carefully read this prospectus supplement, the accompanying prospectus and any related free writing prospectus, together with the information incorporated herein or therein by reference, and with the understanding that our actual future results may materially differ from what we expect.

Except as required by law, forward-looking statements speak only as of the date they are made, and we assume no obligation to update any forward-looking statements publicly or to update the reasons why actual results could differ materially from those anticipated in any forward-looking statements, even if new information becomes available.

USE OF PROCEEDS

We currently intend to use the net proceeds from this offering for general corporate purposes, including research and development activities, capital expenditures and working capital. We may also use all or a portion of the net proceeds from this offering to fund possible investments in, or acquisitions of, complementary businesses, technologies or products, but we currently have no agreements or commitments with respect to any investment or acquisition. Pending the application of the net proceeds, we intend to invest the net proceeds in short-term, investment grade, interest-bearing securities.

As of the date of this prospectus supplement, we cannot specify with certainty all of the particular uses for the net proceeds to us from this offering, if any. As a result, our management will have broad discretion regarding the timing and application of the net proceeds from this offering.

DIVIDEND POLICY

We have never declared or paid any cash dividends on our common stock and do not currently anticipate declaring or paying cash dividends on our common stock in the foreseeable future. We currently intend to retain all of our future earnings, if any, to finance operations. Any future determination relating to our dividend policy will be made at the discretion of our board of directors and will depend on a number of factors, including future earnings, capital requirements, financial conditions, future prospects, contractual restrictions and other factors that our board of directors may deem relevant.

DILUTION

If you invest in our common stock offered by this prospectus supplement and the accompanying prospectus, you will experience immediate dilution to the extent of the difference between the price per unit you pay in this offering and the net tangible book value per share of our common stock immediately after this offering. Our net tangible book value as of March 31, 2015 was approximately \$(1,085,154), or approximately \$(0.054) per share of common stock. Net tangible book value per share as of March 31, 2015 equals the sum of our total tangible assets minus total liabilities, divided by the number of shares of our common stock outstanding as of March 31, 2015.

Dilution in net tangible book value per share represents the difference between the amount per share paid by the investors in this offering and the net tangible book value per share of our common stock immediately after this offering. After giving effect to the sale of 3,000,000 shares of our common stock in this offering at the offering price of \$2.675 per share, and after deducting the placement agent fees and the estimated offering expenses payable by us, our as adjusted net tangible book value as of March 31, 2015 would have been approximately \$6.2 million, or approximately \$0.269 per share of common stock. This represents an immediate increase in the net tangible book value of approximately \$0.323 per share to our existing stockholders and an immediate dilution in the net tangible book value of approximately \$2.406 per share to investors participating in this offering. The following table illustrates this calculation on a per share basis.

Public offering price per share	\$2.675
Net tangible book value per share as of March 31, 2015	\$(0.054)
Increase in net tangible book value per share attributable to this offering	\$0.323
As adjusted net tangible book value per share as of March 31, 2015, after giving effect to this offering	\$0.269
Dilution per share to investors purchasing shares in this offering	\$2.406

The number of shares of our common stock shown above to be outstanding immediately after this offering is based on 19,995,714 shares outstanding as of March 31, 2015, and excludes, as of such date:

2,356,958 shares of our common stock subject to outstanding options having a weighted average exercise price of \$5.92 per share, and 41,518 shares of common stock subject to outstanding non-vested restricted stock awards with a weighted average grant date fair value of \$3.48;

1,275,294 shares of our common stock reserved for future issuance pursuant to our existing stock incentive plans;

3,944,675 shares of our common stock issuable upon exercise of warrants outstanding as of March 31, 2015, having a weighted average exercise price of \$8.24 per share;

up to 670,070 shares of common stock held back by us at the closing of the acquisition of substantially all of the assets of Egen, Inc., an Alabama corporation which has changed its company name to EGWU, Inc. after the closing of the acquisition (EGEN), and shares of common stock that we may be required to issue in the future, subject to the requisite approval of our stockholders, for earnout payments of up to \$30.4 million upon achievement, if any, of the earnout milestones set forth in the asset purchase agreement dated as of June 6, 2014, by and between EGEN and us;

102,389 shares of our common stock held as treasury stock; and

1,950,000 shares of our common stock issuable upon exercise of the warrants to be issued in the concurrent private placement, having an exercise price of \$2.60 per share. See "Private Placement Transaction."

To the extent that any of our outstanding options or warrants are exercised, new options are issued under our stock incentive plans or we otherwise issue additional shares of common stock in the future, there may be further dilution to the investors participating in this offering.

PRICE RANGE OF OUR COMMON STOCK

Our common stock trades on The NASDAQ Capital Market under the symbol "CLSN." The following table sets forth, for the periods indicated, the reported high and low sales prices per share of our common stock on The NASDAQ Capital Market (after giving effect to the 1-for-4.5 reverse split of our common stock that became effective as of October 28, 2013).

Period	High	Low
<u>Year Ending December 31, 2015</u>		
First Quarter	\$ 3.54	\$2.15
Second Quarter (April 1, 2015 to May 27, 2015)	\$3.57	\$2.42
<u>Year Ended December 31, 2014</u>		
First Quarter	\$4.74	\$3.31
Second Quarter	\$3.63	\$2.82
Third Quarter	\$3.73	\$2.90
Fourth Quarter	\$2.99	\$2.26
<u>Year Ended December 31, 2013</u>		
First Quarter	\$42.48	\$4.05
Second Quarter	\$9.45	\$3.38
Third Quarter	\$6.98	\$4.64
Fourth Quarter	\$5.90	\$3.50

On May 27, 2015, the last reported closing sale price of our common stock on The NASDAQ Capital Market was \$2.60 per share.

DESCRIPTION OF THE SECURITIES WE ARE OFFERING

We are offering 3,000,000 shares of our common stock, par value \$0.01 per share, to certain investors at an offering price of \$2.675 per share. The material terms and provisions of our common stock are described under the heading "Description of Capital Stock" starting on page 9 of the accompanying prospectus.

PLAN OF DISTRIBUTION

Pursuant to a placement agency agreement dated as of May 27, 2015, by and between Maxim Group LLC and us, we have engaged Maxim Group LLC as the placement agent in connection with this offering. The placement agent is not purchasing or selling any shares of our common stock we are offering by this prospect supplement but has agreed to use its reasonable best efforts to arrange for the sale of shares of common stock offered by this prospectus supplement.

We have entered into a securities purchase agreement on May 27, 2015 directly with the investors who agree to purchase shares of common stock in this offering. The securities purchase agreement and the placement agency agreement provides that the obligations of the placement agent and the investors are subject to certain conditions precedent, including, among other things, the absence of any material adverse change in our business and the receipt of customary opinions and closing certificates.

We currently anticipate that the closing of this offering will take place on or about June 1, 2015, subject to customary closing conditions. On the closing date, the following will occur:

we will receive funds in the amount of the aggregate purchase price;

The placement agent will receive the placement agent fees in accordance with the terms of the engagement letter; and

we will deliver the shares of our common stock to the investors.

We have agreed to pay the placement agent a placement agent fee in cash equal to 7%, or \$561,750, of the gross proceeds from the sale of the shares in this offering. The following table shows the per share and total placement agent fees we will pay in connection with the sale of the shares of common stock offered hereby, assuming the purchase of all of the shares of common stock we are offering.

Per share placement agent fee	\$0.18725
Total	\$561,750

In addition, we have agreed to reimburse the placement agent at the closing its reasonable out-of-pocket expenses of up to \$75,000. We estimate the total expenses of this offering (including the expenses reimbursable to the placement agent) payable by us, excluding the placement agent fee, will be approximately \$200,000. After deducting the placement agent fee and our estimated offering expenses, we expect the net proceeds from this offering to be approximately \$7.3 million.

If the offering consummates, we agree to grant the placement agent a right of first refusal to act as our co-managing underwriter co-placement agent for any future registered offerings and private placements of equity, equity-linked and debt offerings by us for no less than 30% of the commissions or placement agent fees payable by us to the underwriters or placement agents, except in certain circumstances, during a six-months period after the closing of the offering.

We have agreed to indemnify the placement agent and certain other persons against certain liabilities relating to or arising out of the placement agent's activities under the placement agency agreement. We have also agreed to contribute to payments the placement agent may be required to make in respect of such liabilities.

The placement agent may be deemed to be underwriters within the meaning of Section 2(a)(11) of the Securities Act, and any commissions received by them and any profit realized on the resale of the shares sold by them while acting as principals might be deemed to be underwriting discounts or commissions under the Securities Act. As an underwriter, the placement agent would be required to comply with the requirements of the Securities Act and the Exchange Act, including, without limitation, Rule 415(a)(4) under the Securities Act and Rule 10b-5 and Regulation M under the Exchange Act. These rules and regulations may limit the timing of purchases and sales of shares of common stock by each placement agent acting as principal. Under these rules and regulations, the placement agent:

must not engage in any stabilization activity in connection with our securities; and

must not bid for or purchase any of our securities or attempt to induce any person to purchase any of our securities, other than as permitted under the Exchange Act, until it has completed its participation in the distribution.

A copy of the placement agency agreement and the securities purchase agreement we entered into with the purchasers will be included as exhibits to our Current Report on Form 8-K that will be filed with the Securities and Exchange Commission in connection with the consummation of this offering.

The transfer agent for our common stock is American Stock Transfer & Trust Company, LLC, located at 6201 15th Avenue, Brooklyn, NY 11219. Its telephone number is 718-921-8200.

Our common stock is traded on The NASDAQ Capital Market under the symbol "CLSN."

PRIVATE PLACEMENT TRANSACTION

In a concurrent private placement (the private placement transaction), we are selling to each purchaser of our common stock in this offering a warrant to purchase one share of our common stock for each share of common stock purchased in this offering. The warrants and the shares of our common stock issuable upon the exercise of the warrants, or the warrant shares, are not being registered under the Securities Act, are not being offered pursuant to this prospectus supplement and the accompanying prospectus and are being offered pursuant to the exemption provided in Section 4(a)(2) under the Securities Act and Rule 506(b) promulgated thereunder.

The following is a brief summary of the warrants and is subject to, and qualified in its entirety by, the terms set forth in the forms of the common stock purchase warrant to be filed as an exhibit to our Current Report on Form 8-K, which we expect to file with the Securities and Exchange Commission in connection with this offering and the private placement transaction.

Exercisability. Holders of the warrants may exercise the warrants at any time on or after the date of issuance and on or prior to the close of business on the date that is five years after the date of issuance, subject to the beneficial ownership limitation described below. The holder shall deliver the aggregate exercise price for the shares of common stock specified in the exercise notice within three trading days following the date of exercise unless the cashless exercise is specified in the exercise notice.

Cashless Exercise. If, after six months of the date of issuance of the warrants, there is no effective registration statement registering, or no current prospectus available for, the resale of the warrant shares, the holder may only exercise the warrant, in whole or in part, on a cashless basis. When exercised on a cashless basis, a portion of the warrant is cancelled in payment of the purchase price payable in respect of the number of shares of our common stock purchasable upon such exercise. Any warrant that is outstanding on the termination date of the warrant shall be automatically exercised via cashless exercise.

Exercise Price. The exercise price of each warrant is \$2.60 per share of common stock and is subject to adjustment as described below.

Beneficial Ownership Limitation.

A holder shall have no right to exercise any portion of a warrant, to the extent that, after giving effect to such exercise, such holder, together with such holder's affiliates, and any persons acting as a group together with such holder or any

such affiliate, would beneficially own in excess of, at the initial option of the holder thereof, 4.99% of the number of shares of common stock outstanding immediately after giving effect to the issuance of the shares of common stock upon such exercise. The holder of the warrant, upon not less than 61 days' prior notice to us, may increase or decrease the beneficial ownership limitation to a percentage not to exceed 9.99%. Beneficial ownership of the holder and its affiliates will be determined in accordance with Section 13(d) of the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

Certain Adjustments.

Stock dividends and stock splits. If we pay a stock dividend or otherwise make a distribution payable in shares of common stock on shares of common stock or any other common stock equivalents, subdivide or combine outstanding common stock, or reclassify common stock, the exercise price will be adjusted by multiplying the then exercise price by a fraction, the numerator of which shall be the number of shares of common stock (excluding treasury shares, if any) outstanding immediately before such event, and the denominator of which shall be the number of shares outstanding immediately after such event.

Rights Offerings; pro rata distributions. If we issue common stock equivalents or rights to purchase stock, warrants, securities or other property pro rata to holders of common stock, a holder of a warrant will be entitled to acquire, subject to the beneficial ownership limitation described above, such common stock equivalents or rights that such holder could have acquired if such holder had held the number of shares of common stock issuable upon complete exercise of the warrant immediately prior to the date a record is taken for such issuance. If we declare or make any dividend or other distribution of assets or rights to acquire assets to holders of common stock, a holder of a warrant will be entitled to participate, subject to the beneficial ownership limitation, in such distribution to the same extent that the holder would have participated therein if the holder had held the number of warrant shares upon full exercise of the warrant.

Fundamental Transaction. If we effect a fundamental transaction, including, among other things, a merger, sale of substantially of the assets, tender offer, exchange offer and other business combination transactions, then upon any subsequent exercise of a warrant, the holder thereof shall have the right to receive, for each share of common stock that would have been issuable upon such exercise immediately prior to the occurrence of such fundamental transaction, the number of shares of the successor's or acquiring corporation's common stock or of our common stock, if we are the surviving corporation, and any additional consideration receivable as a result of such fundamental transaction by a holder of the number of shares of common stock for which the warrant is exercisable immediately prior to such fundamental transaction.

Transferability. Each warrant and all rights thereunder are transferable, in whole or in part, upon surrender of the warrant, together with a written assignment of the warrant.

No Rights as Stockholder Until Exercise. The holders of the warrants do not have any voting rights, dividends or other rights as a holder of our capital stock until they exercise the warrants.

Registration Rights.

We are required to file a registration statement on Form S-3 within 45 days after the issuance of the warrants to provide for the resale of the warrant shares. We agree to use commercially reasonable efforts to cause such registration to become effective 181 days following the date of issuance of the warrants and to keep such registration statement effective at all times until (a) the warrant shares are sold under such registration statement or pursuant to Rule 144 under the Securities Act, (b) the warrant shares may be sold without volume or manner-of-sale restrictions pursuant to Rule 144 under the Securities Act, and (c) the five-year anniversary of the date of the issuance of the warrants, whichever is the earliest to occur.

LEGAL MATTERS

Certain legal matters in connection with the shares of common stock offered hereby will be passed upon for us by Sidley Austin LLP, Palo Alto, California. Ellenoff Grossman & Schole LLP, New York, New York, acted as counsel to the placement agent in connection with this offering.

EXPERTS

Stegman & Company, independent registered public accounting firm, has audited our financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2014, as set forth in their report, which is incorporated by reference in this prospectus supplement and the accompanying prospectus. Our financial statements are incorporated by reference in reliance on Stegman & Company's report, given on their authority as experts in accounting and auditing.

Anglin, Reichmann, Snellgrove & Armstrong P.C., an independent public accounting firm, has audited the financial statements of EGWU, Inc. (formerly known as Egen, Inc.), an Alabama corporation, as of and for the year ended June 30, 2013 and for the period from March 2, 2002 (date of inception) to June 30, 2013, and as of and for the year ended June 30, 2012, as set forth in their reports, which appear in Amendment No. 1 to our Current Report on Form 8-K/A filed on August 25, 2014 and Amendment No. 2 to our Current Report on Form 8-K/A filed on May 29, 2015 and are incorporated herein by reference in this prospectus. Such financial statements are incorporated herein by reference in reliance on the reports of Anglin, Reichmann, Snellgrove & Armstrong P.C., given on their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We are subject to the information reporting requirements of the Securities Exchange Act of 1934, as amended (Exchange Act). In accordance with the Exchange Act, we file annual, quarterly and current reports, proxy statements and other information with the Securities and Exchange Commission (SEC). Such reports, proxy statements and other information filed by us are available to the public free of charge at www.sec.gov. You may also read and copy any document we file with the SEC at the public reference facilities maintained by the SEC at 100 F Street, N.E., Washington, D.C. 20549. You may obtain information on the operation of the public reference facilities by calling the SEC at 1-800-SEC-0330. Copies of certain information filed by us with the SEC are also available on our website at www.celsion.com. The information available on or through our website is not part of this prospectus supplement or the accompanying prospectus and should not be relied upon.

This prospectus supplement and the accompanying prospectus are part of a registration statement that we filed with the SEC. This prospectus supplement and the accompanying prospectus omit some information contained in the registration statement in accordance with SEC rules and regulations. You should review the information and exhibits in the registration statement for further information about us and the securities being offered hereby. Statements in this prospectus supplement or the accompanying prospectus concerning any document we filed as an exhibit to the registration statement or that we otherwise filed with the SEC are not intended to be comprehensive and are qualified by reference to the filings. You should review the complete document to evaluate these statements.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The Securities and Exchange Commission (SEC) rules allow us to “incorporate by reference” into this prospectus supplement and the accompanying prospectus much of the information we file with the SEC, which means that we can disclose important information to you by referring you to those publicly available documents. The information that we incorporate by reference into this prospectus supplement and the accompanying prospectus is considered to be part of this prospectus supplement and the accompanying prospectus. These documents may include Annual Reports on Form 10-K and Form 10-K/A, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as well as proxy statements.

This prospectus supplement and the accompanying prospectus incorporate by reference the documents listed below and any future filings we make with the SEC under Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act (in each case, other than those documents or the portions of those documents deemed to be furnished and not filed in accordance with SEC rules):

our Annual Report on Form 10-K for the fiscal year ended December 31, 2014, filed with the SEC on March 12, 2015;

our Quarterly Report on Form 10-Q for the quarter ended March 31, 2015, filed with the SEC on May 11, 2015;

our Current Reports on Form 8-K filed with the SEC on January 20, 2015, on Form 8-K filed with the SEC on May 28, 2015 and on Form 8-K/A filed with the SEC on May 29, 2015 (as Amendment No. 2 to our Current Report on Form 8-K filed with the SEC on June 20, 2014 and Amendment No. 1 on Form 8-K/A filed with the SEC on August 25, 2014);

our Definitive Proxy Statement on Schedule 14A filed with the SEC on April 30, 2015; and

the description of our common stock contained in our registration statement on Form 8-A filed with the SEC on May 26, 2000, as amended by a Form 8-A/A dated February 7, 2008, and any amendments or reports filed for the purpose of updating such description.

Any statement contained in any document incorporated by reference herein shall be deemed to be modified or superseded for purposes of this prospectus supplement to the extent that a statement contained in this prospectus supplement or any additional prospectus supplement modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus supplement.

Because we are incorporating by reference future filings with the SEC, this prospectus supplement and the accompanying prospectus are continually updated and later information filed with the SEC may update and supersede some of the information included or incorporated by reference in this prospectus supplement and the accompanying prospectus. This means that you must look at all of the SEC filings that we incorporate by reference to determine if any of the statements in this prospectus supplement and the accompanying prospectus or in any document previously incorporated by reference have been modified or superseded.

We will provide without charge to each person, including any beneficial owners, to whom this prospectus supplement is delivered, upon his or her written or oral request, a copy of any or all documents referred to above which have been or may be incorporated by reference into this prospectus supplement and the accompanying prospectus but not delivered with this prospectus supplement. You may request a copy of these documents by writing or telephoning us at the following address:

Celsion Corporation

997 Lenox Drive, Suite 100

Lawrenceville, New Jersey 08648

(609) 896-9100

Attention: Jeffrey W. Church

Senior Vice President and Chief Financial Officer

S-34

PROSPECTUS

\$75,000,000
Common Stock
Preferred Stock
Debt Securities
Warrants
Rights
Units

From time to time, we may offer or sell, together or separately, in one or more offerings:

common stock;
preferred stock;
debt securities;
warrants to purchase common stock, preferred stock or debt securities;
rights to purchase common stock, preferred stock or debt securities; or
units comprised of two or more of the foregoing securities.

We may sell any combination of these securities in one or more offerings, up to an aggregate offering price of \$75,000,000, in amounts, at prices and on terms to be determined at the time of each offering thereof. This prospectus provides you with a general description of the securities we may offer. Each time we offer securities using this prospectus, we will provide the specific terms of the securities and the offering in one or more supplements to this prospectus. We may also authorize one or more free writing prospectuses to be provided to you in connection with these offerings. The prospectus supplement and any related free writing prospectus may also add to, update or change the information contained in this prospectus and will also describe the specific manner in which we will offer the securities.

The securities may be sold directly by us to investors, through agents designated from time to time or to or through underwriters or dealers, on a continuous or delayed basis. For additional information on the methods of sale, you should refer to the section titled "Plan of Distribution" in this prospectus. If any agents or underwriters are involved in the sale of any securities with respect to which this prospectus is being delivered, the names of such agents or underwriters and any applicable fees, commissions, discounts and over-allotment options will be set forth in a prospectus supplement. The price to the public of such securities and the net proceeds that we expect to receive from such sale will also be set forth in a prospectus supplement.

This prospectus may not be used to sell any securities unless accompanied by a prospectus supplement. You should carefully read this prospectus, any accompanying prospectus supplement and any related free writing prospectus, as

well as any documents incorporated by reference, prior to investing in any of our securities.

Investing in our securities involves a high degree of risk. You should review carefully the risks and uncertainties described under the heading “Risk Factors” beginning on page 8 of this prospectus, in any accompanying prospectus supplement and in any related free writing prospectus, and under similar headings in the documents incorporated by reference into this prospectus, any accompanying prospectus supplement and any related free writing prospectus.

Our common stock is traded on The NASDAQ Capital Market under the symbol “CLSN.” On August 17, 2012, the last reported sale price of our common stock on The NASDAQ Capital Market was \$4.20 per share. We do not expect our preferred stock, debt securities, warrants, rights or units to be listed on any securities exchange or over-the-counter market unless otherwise described in the applicable prospectus supplement.

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

The date of this prospectus is September 14, 2012.

TABLE OF CONTENTS

	Page
ABOUT THIS PROSPECTUS	1
WHERE YOU CAN FIND ADDITIONAL INFORMATION	1
INFORMATION INCORPORATED BY REFERENCE	2
FORWARD-LOOKING STATEMENTS	3
PROSPECTUS SUMMARY	4
RISK FACTORS	8
USE OF PROCEEDS	8
DIVIDEND POLICY	9
DESCRIPTION OF CAPITAL STOCK	9
DESCRIPTION OF DEBT SECURITIES	15
DESCRIPTION OF WARRANTS	23
DESCRIPTION OF RIGHTS	25
DESCRIPTION OF UNITS	26
PLAN OF DISTRIBUTION	27
LEGAL MATTERS	29
EXPERTS	29

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission (SEC) utilizing a “shelf” registration process. Under this shelf registration process, we may, from time to time, offer shares of our common stock, shares of our preferred stock, debt securities, warrants, rights, units or any combination of these securities in one or more offerings, for a total maximum offering price not to exceed \$75,000,000.

This prospectus provides you with a general description of the securities we may offer. Each time we sell any securities under this prospectus, we will provide a prospectus supplement that will contain more specific information about the terms of that offering, including the specific amounts, prices and terms of the securities offered. Any prospectus supplement may include a discussion of risks or other special considerations applicable to us or the offered securities. Any prospectus supplement may also add to, update or change information contained in this prospectus. To the extent there is a conflict between the information contained in this prospectus, on the one hand, and the information contained in any prospectus, on the other hand, you should rely on the information in the prospectus supplement.

We urge you to carefully read this prospectus, any applicable prospectus supplement and any related free writing prospectus, any documents that we incorporate by reference in this prospectus, any applicable prospectus supplement and any related free writing prospectus, and the additional information described below under “Where You Can Find More Information” and “Incorporation of Certain Documents by Reference” before making an investment decision. You should rely only on the information contained or incorporated by reference in this prospectus, any applicable prospectus supplement and any related free writing prospectus. We have not authorized anyone to provide you with different information. If anyone provides you with additional, different or inconsistent information, you should not rely on it. You should not assume that the information we have included in this prospectus, any applicable prospectus supplement, any related free writing prospectus or any documents incorporated by reference herein or therein is accurate as of any date other than the date of those documents. Our business, financial condition, results of operations and prospects may have changed since those date.

This document may only be used where it is legal to sell these securities. This prospectus is not an offer to sell these securities and it is no soliciting an offer to buy these securities in any jurisdiction whether the offer or sale is not permitted.

Unless the context indicates otherwise, as used in this prospectus, the terms “Celsion”, “the Company”, “we”, “us” and “our” refer to Celsion Corporation, a Delaware corporation. The Celsion brand and product names, including but not limited to Celsion® and ThermoDoxCelsion®, contained in this document are trademarks, registered trademarks or service marks of Celsion Corporation in the United States (U.S.) and certain other countries. This document may also contain references to trademarks and service marks of other companies that are the property of their respective owners.

WHERE YOU CAN FIND MORE INFORMATION

We are subject to the information requirements of the Exchange Act of 1934, as amended (Exchange Act). In accordance with the Exchange Act, we file annual, quarterly and current reports, proxy statements and other information with the SEC. Such reports, proxy statements and other information filed by us are available to the public free of charge at www.sec.gov. You may also read and copy any document we file with the SEC at the public reference facilities maintained by the SEC at 100 F Street, N.E., Washington, D.C. 20549. You may obtain information on the operation of the public reference facilities by calling the SEC at 1-800-SEC-0330. Copies of certain information filed by us with the SEC are also available on our website at www.celsion.com. The information available on or through our website is not part of this prospectus or any accompanying prospectus supplement or

related free writing prospectus and should not be relied upon.

This prospectus is part of a registration statement that we filed with the SEC. This prospectus omits some information contained in the registration statement in accordance with SEC rules and regulations. You should review the information and exhibits in the registration statement for further information about us and the securities being offered hereby. Statements in this prospectus concerning any document we filed as an exhibit to the registration statement or that we otherwise filed with the SEC are not intended to be comprehensive and are qualified by reference to the filings. You should review the complete document to evaluate these statements.

INFORMATION INCORPORATED BY REFERENCE

SEC rules allow us to “incorporate by reference” into this prospectus much of the information we file with the SEC, which means that we can disclose important information to you by referring you to those publicly available documents. The information that we incorporate by reference into this prospectus is considered to be part of this prospectus. These documents may include Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as well as proxy statements. You should read the information incorporated by reference because it is an important part of this prospectus.

This prospectus incorporates by reference the documents listed below, other than those documents or the portions of those documents deemed to be furnished and not filed in accordance with SEC rules:

our Annual Report on Form 10-K/A for the fiscal year ended December 31, 2011 filed with the SEC on March 15, 2012;

our Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2012 filed with the SEC on May 15, 2012 and our Quarterly Report on Form 10-Q filed for the fiscal quarter ended June 30, 2012 filed with the SEC on August 14, 2012;

our Current Reports on Form 8-K filed with the SEC on May 10, 2012, May 15, 2012, June 7, 2012 and June 28, 2012;

our proxy statement relating to our annual meeting of stockholders filed with the SEC on April 27, 2012; and

the description of our common stock contained in our registration statement on Form 8-A filed with the SEC on May 26, 2000, as amended by a Form 8-A/A dated February 7, 2008, and any amendments or reports filed for the purpose of updating such description.

Any statement contained in any document incorporated by reference herein shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus or any prospectus supplement modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

We also incorporate by reference any future filings (other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items) made with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (in each case, other than those documents or the portions of those documents deemed to be furnished and not filed in accordance with SEC rules) until the offering of the securities under the registration statement of which this prospectus forms a part is terminated or completed. Information in such future filings updates and supplements the information provided in this prospectus. Any statements in any such future filings will be deemed to modify and supersede any information in any document we previously filed with the SEC that is incorporated or deemed to be incorporated herein by reference to the extent that statements in the later filed document modify or replace such earlier statements.

Because we are incorporating by reference future filings with the SEC, this prospectus is continually updated and later information filed with the SEC may update and supersede some of the information included or incorporated by reference in this prospectus. This means that you must look at all of the SEC filings that we incorporate by reference to determine if any of the statements in this prospectus or in any document previously incorporated by reference have been modified or superseded.

Edgar Filing: Celsion CORP - Form 424B5

We will provide without charge to each person, including any beneficial owners, to whom this prospectus is delivered, upon his or her written or oral request, a copy of any or all documents referred to above which have been or may be incorporated by reference into this prospectus but not delivered with this prospectus, excluding exhibits to those documents unless they are specifically incorporated by reference into those documents. You may request a copy of these documents by writing or telephoning us at the following address.

Celsion Corporation
997 Lenox Drive, Suite 100
Lawrenceville, New Jersey 08648
(609) 896-9100
Attention: Gregory Weaver
Senior Vice President & CFO

FORWARD-LOOKING STATEMENTS

Certain statements contained or incorporated by reference in this prospectus, in any applicable prospectus supplement and in any related free writing prospectus constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 and releases issued by the Securities and Exchange Commission and within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. From time to time, we publish forward-looking statements relating to such matters as anticipated financial performance, business prospects, technological developments, new products, research and development activities and other aspects of our present and future business operations and similar matters that also constitute such forward-looking statements. These statements involve known and unknown risks, uncertainties and other factors that may cause our or our industry's actual results, levels of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements expressed or implied by such forward-looking statements. Such factors include, among other things:

any statements regarding future operations, plans, regulatory filings or approvals, including the plans and objectives of management for future operations or programs or proposed new products or services;

any statements regarding the performance, or likely performance, or outcomes or economic benefit of any of our research and development activities or proposed or potential clinical trials or new drug filing strategies or timelines, including whether any of our clinical trials will be completed successfully within any specified time period or at all;

any projections of cash resources, revenue, operating expense or other financial terms;

any statements regarding pending or future mergers or acquisitions;

any statements regarding approaches to medical treatment or possible actions by customers, suppliers, strategic partners, potential strategic partners, competitors and regulatory authorities;

any statements regarding compliance with the listing standards of The NASDAQ Capital Market; and

any statements regarding future economic conditions or performance and any statement of assumptions underlying any of the foregoing.

In some cases, you can identify forward-looking statements by terminology such as “expect,” “anticipate,” “estimate,” “plan,” “believe,” “could,” “intend,” “predict,” “may,” “should,” “will” and words of similar import regarding the Company's expectations. Forward-looking statements are only predictions and actual events or results may differ materially. Although we believe that our expectations are based on reasonable assumptions within the bounds of our current knowledge of our industry, business and operations, we cannot guarantee that actual results will not differ materially from our expectations. In evaluating such forward-looking statements, you should specifically consider various factors, including the risks outlined under the heading “Risk Factors” contained in this prospectus, the accompanying prospectus supplement and any related free writing prospectus, and in our most recent annual report on Form 10-K or 10-K/A and our most recent quarterly report on Form 10-Q, as well as any amendments thereto reflected in subsequent filings with the SEC. The discussion of risks and uncertainties set forth in those filings is not necessarily a complete or exhaustive list of all risks facing the Company at any particular point in time. We operate in a highly competitive, highly regulated and rapidly changing environment, and our business is in a state of evolution. Therefore, it is likely that over time new risks will emerge and the nature and elements of existing risks will change. It is not possible for management to predict all such risk factors or changes therein or to assess either the impact of all such risk factors on our business or the extent to which any individual risk factor, combination of factors or new or altered factors may

cause results to differ materially from those contained in any forward-looking statement. Forward-looking statements represent our estimates and assumptions only as of the date such forward-looking statements are made. You should carefully read this prospectus supplement, the accompanying prospectus and any related free writing prospectus, together with the information incorporated herein or therein by reference as described under the section titled “Information Incorporated By Reference,” and with the understanding that our actual future results may materially differ from what we expect.

Except as required by law, forward-looking statements speak only as of the date they are made, and we assume no obligation to update any forward-looking statements publicly, or to update the reasons why actual results could differ materially from those anticipated in any forward-looking statements, even if new information becomes available.

PROSPECTUS SUMMARY

The following summary highlights selected information contained or incorporated by reference in this prospectus. This summary does not contain all of the information you should consider before investing in the securities. Before making an investment decision, you should read the entire prospectus and any accompanying prospectus supplement carefully, including the risk factors section as well as the financial statements and the notes to the financial statements incorporated herein by reference.

Our Company

Celsion Corporation is an innovative oncology drug development company focused on the development of treatments for those suffering with difficult to treat forms of cancer. We are working to develop and commercialize more efficient and effective, targeted chemotherapeutic oncology drugs based on our proprietary heat-activated liposomal technology. The promise of this drug technology is to maximize efficacy while minimizing side-effects common to cancer treatments.

Our lead product ThermoDox® is being evaluated in a Phase III clinical trial for primary liver cancer (the HEAT study), Phase II clinical trial for colorectal liver metastasis (CRLM) and a Phase I/II clinical trial for recurrent chest wall breast cancer. ThermoDox® is a liposomal encapsulation of doxorubicin, an approved and frequently used oncology drug for the treatment of a wide range of cancers. Localized heat at mild hyperthermia temperatures (greater than 40 degrees Celsius) releases the encapsulated doxorubicin from the liposome enabling high concentrations of doxorubicin to be deposited preferentially in and around the targeted tumor.

The U.S. Food and Drug Administration (FDA) has granted our Phase III HEAT study for ThermoDox®, in combination with radiofrequency ablation, a Special Protocol Assessment and has designated it as a Fast Track Development Program. We have received written guidance from the FDA stating that, assuming the results of our ongoing studies are adequate, we may submit our New Drug Application (NDA) for ThermoDox® pursuant to Section 505(b)(2) of the Federal Food, Drug and Cosmetic Act. A 505(b)(2) NDA provides that some of the information from the reports required for marketing approval may come from studies that the applicant does not own or for which the applicant does not have a legal right of reference and permits a manufacturer to obtain marketing approval for a drug without needing to conduct or obtain a right of reference for all of the required studies. The availability of Section 505(b)(2) and the designation of ThermoDox® as a Fast Track Development Program may provide us with an expedited pathway to approval. There can be no assurance, however, that the results of our ongoing studies will be adequate to obtain approval of ThermoDox® under Section 505(b)(2). Drug research and development is an inherently uncertain process and there is a high risk of failure at every stage prior to approval and the timing and the outcome of clinical results is extremely difficult to predict. Clinical development successes and failures can have a disproportionate positive or negative impact on our scientific and medical prospects, financial prospects, financial condition, and market value.

In December 2011, the European Medicines Agency (EMA) provided written, scientific advice confirming that the HEAT study is acceptable as a basis for submission of a marketing authorization application (MAA). Based on feedback and guidance received from the EMA, we expect that future results demonstrating a convincing magnitude of improvement in progression-free survival, the study's primary endpoint, along with a favorable benefit-risk ratio in the HEAT study, would be sufficient as the primary basis for registration of ThermoDox® in Europe. The EMA also supported our manufacturing strategy and technology transfer protocols, which will allow us to establish multiple manufacturing sites to support commercialization of ThermoDox® outside the United States. In March of 2011, we announced that the European Commission granted orphan drug designation for ThermoDox® in primary liver cancer, which provides assistance and incentives, including ten years of marketing exclusivity subsequent to product approval, in support of product candidates intended for the treatment of a life-threatening or chronically debilitating

condition affecting no more than five in 10,000 persons in the European Union. ThermoDox® also holds orphan drug designation in the U.S.

We have also demonstrated the feasibility for a product pipeline of cancer drugs that employ our heat activated liposomal technology in combination with known chemotherapeutics, including docetaxel and carboplatin. We believe that our technology can improve efficacy and safety of anticancer agents whose mechanism of action and safety profile are well understood by the medical and regulatory communities. Our approach provides a comparatively cost effective, low risk approval pathway. An element of our business strategy is to pursue, as resources permit, the research and development of a range of product candidates for a variety of indications. This is intended to allow us to diversify the risks associated with our research and development expenditures. To the extent we are unable to maintain a broad range of product candidates, our dependence on the success of one or a few product candidates would increase. Additionally, we have formed a joint research agreement with Philips Healthcare, a division of Royal Philips Electronics, to evaluate the combination of Philips' high intensity focused ultrasound (HIFU) with ThermoDox® to determine the potential of this combination to treat a broad range of cancers. In August 2012, we announced FDA Clearance to commence a Phase II Study of ThermoDox® and Philip's Sonalleve® MR-Guided HIFU technology for the palliation of painful metastases to the bone caused by lung, prostate or breast cancers. For certain markets, we may seek licensing partners to share in the development and commercialization costs. We will also evaluate licensing cancer products from third parties for cancer treatments to expand our product pipeline.

On May 30, 2012, we announced that we had reached our enrollment objective of 700 patients in the HEAT study. The target enrollment figure is designed to ensure that the HEAT study's primary end point, progression-free survival, can be achieved with adequate statistical power and is one of two triggers for an interim efficacy analysis by the HEAT study's DMC. The second trigger was the occurrence of 190 progression-free survival (PFS) events in the study population. We met the second trigger of 190 PFS events in the third quarter of 2011 which allowed us to conduct a planned interim analysis in the fourth quarter of 2011.

On November 28, 2011, we announced that the independent Data Monitoring Committee (DMC) for the HEAT study completed a pre-planned interim analysis for safety, efficacy and futility and unanimously recommended that the study continue to its final analysis as planned. The DMC evaluated data from 613 patients in its review, which was conducted following realization of 219 PFS events within the study population. A total of 380 events of progression are required to reach the planned final analysis of the study, which is projected to occur in late 2012.

Consistent with our global regulatory strategy, we announced on April 23, 2012, that randomization of at least 200 patients in the People's Republic of China (PRC), a requirement for registrational filing in the PRC, had been completed. The HEAT study had already enrolled a sufficient number to support registrational filings in South Korea and Taiwan, two important markets for ThermoDox®.

The DMC has maintained its recommendation to continue withholding enrollment of additional patients in Japan pending certain guidance from the Pharmaceuticals and Medical Devices Agency (PMDA) in Japan. The original recommendation followed a review of safety data from 18 Japanese patients enrolled in the study, when compared to patient data from the rest of the Phase III trial. As a part of its commitment to the PMDA, the DMC independently assesses patients randomized at Japanese sites. The DMC continues to review safety and efficacy data in accordance with the PMDA in Japan and the DMC's charter, however there can be no assurance that the DMC will permit resumption of patient enrollment in Japan or at all nor can there be any assurance that we will receive the second \$2.0 million payment from Yakult Honsha Co. pursuant to our development, product supply and commercialization agreement with Yakult Honsha Co., as amended in January 2011 (the Yakult Agreement), under which Yakult was granted the exclusive right to commercialize and market ThermoDox® for the Japanese market. The terms of the January 2011 amendment to the Yakult Agreement provided for the payment to us of \$2.0 million upon the closing of the preferred equity financing we consummated in January 2011 and a second \$2.0 million payment to us was conditioned upon the resumption of enrollment of Japanese patients in the Japan cohort of the HEAT study, which has not resumed. In consideration for the \$2.0 million accelerated milestone payment from Yakult, we agreed to reduce future drug approval milestone payments by approximately twenty percent (20%). All other milestone payments were

unaffected by the amendment. We may receive additional payments from Yakult upon receipt of marketing approval by the Japanese Ministry of Health, Labor and Welfare as well as upon the achievement of certain levels of sales and approval for new indications. Under the Yakult Agreement, we will receive double digit escalating royalties on the sale of ThermoDox® in Japan, when and if any such sales occur and we also will be the exclusive supplier of ThermoDox® to Yakult.

In January 2012, we announced the enrollment of our first patient in the randomized Phase II study of ThermoDox® in combination with radiofrequency ablation for the treatment of colorectal liver metastases (the ABLATE Study). The ABLATE Study is expected to enroll up to 88 patients with colorectal cancer metastasized to the liver. Patients will be randomized to receive either RFA plus ThermoDox® or RFA alone for the treatment of their liver tumors. The primary study endpoint is based on one year local tumor recurrence, with secondary endpoints of time to progression and overall survival.

On May 6, 2012, we entered into a long term commercial supply agreement with Zhejiang Hisun Pharmaceutical Co. Ltd. (Hisun) for the production of ThermoDox® in the mainland China, Hong Kong and Macau (the China territory). Per the terms of the agreement, Hisun will be responsible for providing all of the technical and regulatory support services, including the costs of all technical transfer, registrational and bioequivalence studies, technical transfer costs, Celsion consultative support costs and the purchase of any necessary equipment and additional facility costs necessary to support capacity requirements for the manufacture of ThermoDox®. We will repay Hisun for the aggregate amount of these development costs and fees commencing on the successful completion of three registrational batches of ThermoDox®. The batches are expected to be successfully delivered in mid 2013, and repayment of the development costs will occur at any time on or prior to the fourth year anniversary of the signing of the agreement, which in total is expected to be approximately \$2.0 million. Hisun is also obligated to certain performance requirements under the agreement. The agreement will initially be limited to a percentage of the production requirements of ThermoDox® in the China territory with Hisun retaining an option for additional global supply after local regulatory approval in the China territory. In addition, Hisun will collaborate with us in relation to the regulatory approval activities for ThermoDox® with the China State Food and Drug Administration (SFDA).

On June 27, 2012, we entered into a Loan and Security Agreement (the Credit Agreement) with Oxford Finance LLC (Oxford) and Horizon Technology Finance Corporation (Horizon). The Credit Agreement provides for a secured term loan of up to \$10 million, with 50% of any loans to be funded by Oxford and 50% to be funded by Horizon. The aggregate loan amount may be advanced in two tranches of \$5 million each. The first tranche (the Term A Loan) was made available to us on June 27, 2012 and the second tranche (the Term B Loan) may be made available, if at all, during the period beginning on the date that we achieve positive data in our hepatocellular carcinoma Phase III clinical trial of RFA and ThermoDox® and ending on March 31, 2013. The Term A Loan is scheduled to mature on October 15, 2015 (or, if the Term B Loan is made available, January 1, 2016) and the Term B Loan is scheduled to mature on January 1, 2016. As a fee in connection with the Credit Agreement, we issued warrants to Horizon and Oxford (the Warrants) to purchase the number of shares of Celsion's common stock equal to 3% of each loan amount divided by the exercise price, which is calculated as the average NASDAQ closing price of our common stock for the three days prior to the funding of the loan amount (\$2.92 per share for the Term A Loan). This results in 51,370 warrant shares issuable in connection with the Term A Loan and additional warrant shares issuable in connection with the Term B Loan, if that is made available. The Warrants are immediately exercisable for cash or by net exercise and will expire seven years after their issuance, which is June 27, 2019 for the Warrants issued connection with the Term A Loan.

Our current business strategy includes the possibility of entering into collaborative arrangements with third parties to complete the development and commercialization of our product candidates. In the event that third parties take over the clinical trial process for one or more of our product candidates, the estimated completion date would largely be under the control of that third party rather than us. We cannot forecast with any degree of certainty which proprietary products or indications, if any, will be subject to future collaborative arrangements, in whole or in part, and how such arrangements would affect our development plan or capital requirements. We may also apply for subsidies, grants, or government or agency-sponsored studies that could reduce our development costs.

As a result of the uncertainties discussed above, among others, we are unable to estimate the duration and completion costs of our research and development projects or when, if ever, and to what extent we will receive cash inflows from the commercialization and sale of a product. Our inability to complete our research and development projects in a timely manner or our failure to enter into collaborative agreements when appropriate could significantly increase our capital requirements and could adversely impact our liquidity. While our estimated future capital requirements are uncertain and could increase or decrease as a result of many factors, including the extent to which we choose to advance our research, development and clinical trials, or if we are in a position to pursue manufacturing or commercialization activities, it is clear we will need significant additional capital to develop our product candidates

through clinical development, manufacturing, and commercialization. We do not know whether we will be able to access additional capital when needed or on terms favorable to us or our stockholders. Our inability to raise additional capital, or to do so on terms reasonably acceptable to us, would jeopardize the future success of our business.

Corporate Information

We were founded in 1982 and are a Delaware corporation. Our shares of common stock trade on The NASDAQ Capital Market under the symbol "CLSN." Our principal executive offices are located at 997 Lenox Drive, Suite 100, Lawrenceville, New Jersey 08648. Our telephone number is (609) 896-9100 and our website is www.celsion.com. The information available on or through our website is not part of this prospectus and should not be relied upon.

The Securities We May Offer

We may offer shares of our common stock and preferred stock, and warrants and/or rights to purchase shares of our common stock and preferred stock, or debt securities, either individually or in units, with a total value of up to \$75,000,000 from time to time under this prospectus at prices and on terms to be determined by market conditions at the time of any offering.

The descriptions of the securities contained in this prospectus, together with the applicable prospectus supplements, summarize all the material terms and provisions of the various types of securities that we may offer. We will describe in the applicable prospectus supplement relating to any securities the particular terms of the securities offered by that prospectus supplement. If we indicate in the applicable prospectus supplement or free writing prospectus, the terms of the securities may differ from the terms we have summarized below. However, no prospectus supplement or free writing prospectus will offer a security that is not registered and described in this prospectus at the time of the effectiveness of the registration statement of which this prospectus is a part. We will also include information in the prospectus supplement or free writing prospectus, where applicable, about material United States federal income tax considerations relating to the securities, and the securities exchange, if any, on which the securities will be listed.

THIS PROSPECTUS MAY NOT BE USED TO CONSUMMATE A SALE OF SECURITIES UNLESS IT IS ACCOMPANIED BY A PROSPECTUS SUPPLEMENT.

We may sell the securities directly to investors or to or through agents, underwriters or dealers. We, and our agents or underwriters, reserve the right to accept or reject all or part of any proposed purchase of securities. If we do offer securities to or through agents or underwriters, we will include in the applicable prospectus supplement:

- the names of those agents or underwriters;
- applicable fees, discounts and commissions to be paid to them;
- details regarding over-allotment options, if any; and
- the net proceeds to us.

Common Stock. We may issue shares of our common stock from time to time. The holders of our common stock are entitled to one vote for each share held of record on all matters submitted to a vote of stockholders and do not have cumulative voting rights. Subject to preferences that may be applicable to any outstanding shares of preferred stock, the holders of our common stock are entitled to receive ratably such dividends as may be declared by our board of directors out of legally available funds. Upon our liquidation, dissolution or winding up, holders of our common stock are entitled to share ratably in all assets remaining after payment of liabilities and the liquidation preferences of any then outstanding shares of preferred stock.

Preferred Stock. We may issue shares of our preferred stock from time to time, in one or more series. Our board of directors will determine designations, powers (including voting), privileges, preferences and relative participating, optional or other rights, if any, of the shares of each such series and the qualifications, limitations or restrictions thereof, including dividend rights, conversion rights, preemptive rights, terms of redemption or repurchase, liquidation preferences, sinking fund terms and the number of shares constituting any series or the designation of any series. Convertible preferred stock will be convertible into our common stock or exchangeable for our other securities. Conversion may be mandatory or at the holder's option and would be at prescribed conversion rates.

If we sell any series of preferred stock under this prospectus, we will fix the designations, powers (including voting), privileges, preferences and relative participating, optional or other rights, if any, of the shares of each such series and the qualifications, limitations or restrictions thereof, in the certificate of designation relating to that series. We will file as an exhibit to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of any certificate of designation that describes the terms of the series of preferred stock that we are offering before the issuance of the related series of preferred stock. We urge you to read the applicable prospectus supplement (and any free writing prospectus that we may authorize to be provided to you) related to the series of preferred stock being offered, as well as the complete certificate of designation that contains the terms of the applicable series of preferred stock.

Debt Securities. We may issue debt securities under one or more separate indentures between a trustee and us. These debt securities may be either secured or unsecured and will either be our senior debt securities or our subordinated debt securities. In this prospectus, we have summarized certain selected features of the debt securities to which any prospectus supplement may relate. We urge you, however, to read the applicable prospectus supplement (and any free writing prospectus that we may authorize to be provided to you) related to the particular debt securities being offered, as well as any indentures, certificates or other documents that describe the terms of the debt securities we are offering before the issuance of such securities.

Warrants. We may issue warrants for the purchase of our common stock or preferred stock, in one or more series. We may issue warrants independently or together with common stock or preferred stock, and the warrants may be attached to or separate from these securities. The warrants will be evidenced by warrant certificates issued under one or more warrant agreements, which are contracts between us and an agent for the holders of the warrants. In this prospectus, we have summarized certain general features of the warrants. We will file as an exhibit to the registration statement of which this prospectus is a part, or will incorporate by reference into the registration statement of which this prospectus is a part, the form of warrant agreement, including a form of warrant certificate, that describes the terms of the series of warrants we are offering before the issuance of the related series of warrants. We urge you to read the prospectus supplement (and any free writing prospectus that we may authorize to be provided to you) related to the series of warrants being offered, as well as the complete warrant agreements and warrant certificates that contain the terms of the applicable series of warrants.

Rights. We may issue rights to purchase our common stock or preferred stock, in one or more series. We may issue rights independently or together with other securities, and the rights may be attached or separate from these securities. In this prospectus, we have summarized certain general features of the rights. We urge you, however, to read the applicable prospectus supplement (and any free writing prospectus that we may authorize to be provided to you) related to the particular series of rights being offered, as well as any agreements that describe the terms of the rights we are offering before the issuance of the related rights.

Units. We may issue, in one or more series, units consisting of our common stock, preferred stock, rights or warrants for the purchase of our common stock or preferred stock, or debt securities in any combination. Each series of units will be evidenced by unit certificates that we will issue, and units may be issued under a unit agreement that we enter into with a unit agent. In this prospectus, we have summarized certain general features of the units. We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of unit agreement and any supplemental agreements, including a form of unit certificate, that describe the terms of the series of units we are offering before the issuance of the related series of units. We urge you, however, to read the applicable prospectus supplement (and any free writing prospectus that we may authorize to be provided to you) related to the series of units being offered, as well as the complete unit agreement that contains the terms of the units.

RISK FACTORS

Investing in our securities involves a high degree of risk. You should carefully consider and evaluate all of the information contained in this prospectus, any accompanying prospectus supplement and in the documents incorporated by reference in this prospectus and any accompanying prospectus supplement before you decide to purchase our securities. In particular, you should carefully consider and evaluate the risks and uncertainties described in “Part I — Item 1A. Risk Factors” of our most recent Form 10-K or Form 10-K/A, as updated by the additional risks and uncertainties set forth in our most recent Form 10-Q and in other filings we make with the SEC, as well as the risks and uncertainties described under the heading “Risk Factors” contained in the applicable prospectus supplement or in any other document incorporated by reference into this prospectus or any accompanying prospectus supplement. Any

of the risks and uncertainties set forth therein could materially and adversely affect our business, results of operations and financial condition, which in turn could materially and adversely affect the trading price or value of our securities. As a result, you could lose all or part of your investment.

USE OF PROCEEDS

We currently intend to use the net proceeds from the sale of the securities offered hereby for general corporate purposes, which may include the further development, manufacture and commercialization of our lead product candidate, ThermoDox®, and to fund research and development of other products, working capital, capital expenditures and other general corporate purposes. We may also use a portion of the net proceeds to acquire or invest in businesses, products and technologies that are complementary to our own, as well as for capital expenditures. We have not specifically allocated the proceeds to those purposes as of the date of this prospectus. Pending these uses, we expect to invest the net proceeds in short-term, investment-grade securities. The precise amount and timing of the application of proceeds from the sale of securities will depend on our funding requirements and the availability and cost of other funds at the time of sale. Allocation of proceeds of a particular series of securities, or the principal reason for the offering if no allocation has been made, will be described in the applicable prospectus supplement or in any related free writing prospectus.

DIVIDEND POLICY

We have never declared or paid any cash dividends on our common stock and do not currently anticipate paying cash dividends in the foreseeable future.

DESCRIPTION OF CAPITAL STOCK

General

Our authorized capital stock consists of 75,000,000 shares of common stock, \$0.01 par value per share, and 100,000 shares of preferred stock, \$0.01 par value per share. As of August 12, 2012, there were 33,227,679 shares of our common stock outstanding and no shares of preferred stock outstanding.

The following summary description of our capital stock is based on the applicable provisions of the Delaware General Corporation Law, as amended (DGCL), and on the provisions of our certificate of incorporation, as amended (our Certificate of Incorporation), and our bylaws, as amended (our Bylaws). This information is qualified entirely by reference to the applicable provisions of the DGCL and our Certificate of Incorporation and Bylaws. For information on how to obtain copies of our Certificate of Incorporation and Bylaws, which are exhibits to the registration statement of which this prospectus is a part, see the section titled “Where You Can Find Additional Information” in this prospectus.

Common Stock

Holders of common stock to be registered hereunder are entitled to one vote for each share held of record on all matters submitted to a vote of stockholders and do not have cumulative voting rights. Subject to any preferential rights of any outstanding preferred stock, holders of common stock are entitled to receive ratably such dividends, if any, as may be declared from time to time by the board of directors of the Company (Board) out of funds legally available therefor. In the event of a dissolution, liquidation or winding-up of the Company, holders of common stock are entitled to share ratably in all assets remaining after payment of liabilities and any preferential rights of any outstanding preferred stock.

Holders of common stock have no preemptive or conversion rights or other subscription rights. There are no redemption or sinking fund provisions applicable to the common stock. All outstanding shares of common stock are fully paid and non-assessable. The rights, preferences and privileges of the holders of common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of preferred stock which may be designated and issued in the future.

Preferred Stock

Pursuant to our Certificate of Incorporation, our Board has the authority, without further action by the stockholders (unless such stockholder action is required by applicable law or NASDAQ rules), to designate and issue shares of preferred stock in one or more series, to establish from time to time the number of shares to be included in each such series, to fix the designations, powers (including voting), privileges, preferences and relative participating, optional or other rights, if any, of the shares of each such series and the qualifications, limitations or restrictions thereof and to increase or decrease the number of shares of any such series, but not below the number of shares of such series then outstanding.

We will fix the designations, powers (including voting), privileges, preferences and relative participating, optional or other rights, if any, of the preferred stock of each series, as well as the qualifications, limitations or restrictions

thereof, in the certificate of designation relating to that series. We will file as an exhibit to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of any certificate of designation that describes the terms of the series of preferred stock we are offering before the issuance of that series of preferred stock. This description will include:

the title and stated value;

the number of shares we are offering;

the liquidation preference per share;

the purchase price;

the dividend rate, period and payment date and method of calculation for dividends;

whether dividends will be cumulative or non-cumulative and, if cumulative, the date from which dividends will accumulate;

the procedures for any auction or remarketing, if any;

the provisions for a sinking fund, if any;

the provisions for redemption or repurchase, if applicable, and any restrictions on our ability to exercise those redemption and repurchase rights;

any listing of the preferred stock on any securities exchange or market;

whether the preferred stock will be convertible into or exchangeable for other securities and, if applicable, the conversion price, or how it will be calculated, and the conversion period;

voting rights, if any, of the preferred stock;

preemptive rights, if any;

restrictions on transfer, sale or other assignment, if any;

liability as to further calls or to assessment by the Company, if any;

a discussion of any material United States federal income tax considerations applicable to the preferred stock;

the relative ranking and preferences of the preferred stock as to dividend rights and rights if we liquidate, dissolve or wind up our affairs;

any limitations on the issuance of any class or series of preferred stock ranking senior to or on a parity with the series of preferred stock as to dividend rights and rights if we liquidate, dissolve or wind up our affairs; and

any other specific terms, preferences, rights or limitations of, or restrictions on, the preferred stock.

The DGCL provides that the holders of preferred stock will have the right to vote separately as a class (or, in some cases, as a series) on an amendment to our Certificate of Incorporation if the amendment would change the par value or, unless the Certificate of Incorporation provides otherwise, the number of authorized shares of the class or the powers, preferences or special rights of the class or series so as to adversely affect the class or series, as the case may be. This right is in addition to any voting rights that may be provided in the applicable certificate of designation.

Our Board may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of our common stock or other securities. Preferred stock could be issued quickly with terms designed to delay or prevent a change in control of our company or make removal of management more difficult. Additionally, the issuance of preferred stock may have the effect of decreasing the market price of our common stock.

Anti-Takeover Considerations and Special Provisions of Our Certificate of Incorporation, Our Bylaws and the
Delaware
General Corporation Law

Certificate of Incorporation and Bylaws

A number of provisions of our Certificate of Incorporation and Bylaws concern matters of corporate governance and the rights of our stockholders. Provisions that grant our Board the ability to issue shares of preferred stock and to set the voting rights, preferences and other terms thereof may discourage takeover attempts that are not first approved by our Board, including takeovers that may be considered by some stockholders to be in their best interests, such as those attempts that might result in a premium over the market price for the shares held by stockholders. Certain provisions could delay or impede the removal of incumbent directors even if such removal would be beneficial to our stockholders, such as the classification of our Board and the lack of cumulative voting. Since our Board has the power to retain and discharge our officers, these provisions could also make it more difficult for existing stockholders or another party to effect a change in management.

These provisions may have the effect of deterring hostile takeovers or delaying changes in our control or in our management. These provisions are intended to enhance the likelihood of continued stability in the composition of our Board and in the policies they implement and to discourage certain types of transactions that may involve an actual or threatened change of our control. These provisions are designed to reduce our vulnerability to an unsolicited acquisition proposal. The provisions also are intended to discourage certain tactics that may be used in proxy fights. However, such provisions could have the effect of discouraging others from making tender offers for our shares and, as a consequence, they also may inhibit fluctuations in the market price of our shares that could result from actual or rumored takeover attempts.

These provisions also could discourage or make more difficult a merger, tender offer or proxy contest, even if they could be favorable to the interests of stockholders, and could potentially depress the market price of our common stock. Our Board believes that these provisions are appropriate to protect our interests and the interests of our stockholders.

Classification of Board; No Cumulative Voting. Our Certificate of Incorporation and Bylaws provide for our Board to be divided into three classes, with staggered three-year terms. Only one class of directors is elected at each annual meeting of our stockholders, with the other classes continuing for the remainder of their respective three-year terms. Because our stockholders do not have cumulative voting rights, our stockholders representing a majority of the shares of common stock outstanding will be able to elect all of our directors due to be elected at each annual meeting of our stockholders.

Meetings of and Actions by Stockholders. Our Bylaws provide that annual meetings of our stockholders may take place at the time and place designated by our Board. A special meeting of our stockholders may be called at any time by our Board, the chairman of our Board or the president. Our Bylaws provide that (i) the Board can fix separate record dates for determining stockholders entitled to receive notice of a stockholder meeting and for determining stockholders entitled to vote at the meeting; (ii) we may hold a stockholder meeting by means of remote communications; (iii) any stockholder seeking to have the stockholders authorize or take corporate action by written consent shall, by written notice to the secretary of the Company, request that the Board fix a record date and the Board shall adopt a resolution fixing the record date in all events within ten calendar days after a request is received; and (iv) a written consent of stockholders shall not be effective unless a written consent signed by a sufficient number of stockholders to take such action is received by us within 60 calendar days of the earliest dated written consent received.

Advance Notice Requirements for Stockholder Proposals and Director Nominations. Our Bylaws provide that stockholders seeking to bring business before an annual meeting of stockholders or to nominate candidates for election as directors at an annual meeting of stockholders must provide timely notice in writing. To be timely, a stockholder's notice must be delivered to, or mailed and received by, the secretary of the Company at our principal executive offices not later the close of business on the 90th calendar day, nor earlier than the close of business on the 120th calendar day in advance of the date specified in the Company's proxy statement released to stockholders in connection with the previous year's annual meeting of stockholders. If the date of the annual meeting is more than 30 calendar days after such anniversary date, notice by the stockholder to be timely must be so not earlier than the close of business on the 120th calendar day in advance of such date of annual meeting and not later than the close of business on the later of the 90th calendar day in advance of such date of annual meeting or the 10th calendar day following the date on which public announcement of the date of the meeting is made. In no event shall the public announcement of an adjournment or postponement of an annual meeting commence a new time period (or extend any time period) for the giving of an advance notice by any stockholder. Any stockholder that proposes director nominations or other business must be a stockholder of record at the time the advance notice is delivered by such stockholder to us and entitled to vote at the meeting. Our Bylaws also specify requirements as to the form and content of a stockholder's notice. These provisions may preclude stockholders from bringing matters before an annual meeting of stockholders or from making nominations for the election of directors at an annual meeting of stockholders. Unless otherwise required by law, any director nomination or other business shall not be made or transacted if the stockholder (or a qualified representative of the stockholder) does not appear at the meeting to present the director nominee or other proposed business.

Filling of Board Vacancies. Our Certificate of Incorporation and Bylaws provide that the authorized size of the Board shall be determined by the Board by Board resolution from time to time and that the Board has the exclusive power to fill any vacancies and newly created directorships resulting from any increase in the authorized number of directors and the stockholders do not have the power to fill such vacancies. Vacancies in our Board and newly created directorships resulting from any increase in the authorized number of directors on our Board may be filled by a majority of the directors remaining in office, even though that number may be less than a quorum of our Board, or by a sole remaining director. A director so elected to fill a vacancy shall serve for the remaining term of the predecessor he or she replaced and until his or her successor is elected and has qualified, or until his or her earlier resignation, removal or death.

Amendment of the Certificate of Incorporation. Our Certificate of Incorporation may be amended, altered, changed or repealed at a meeting of our stockholders entitled to vote thereon by the affirmative vote of a majority of the outstanding stock entitled to vote thereon and a majority of the outstanding stock of each class entitled to vote thereon as a class, in the manner prescribed by the DGCL.

Amendment of the Bylaws. Our Bylaws may be altered, amended, changed, added-to or repealed by either the Board or the affirmative vote of at least 66 2/3% of the voting power of our outstanding shares of capital stock. The Bylaws can only be amended if such amendment would not conflict with the Certificate of Incorporation or applicable law. Any bylaw made or altered by the requisite number of stockholders may be altered or repealed by our Board or by the requisite number of stockholders.

Our Board amended and restated Bylaws on November 27, 2011. The amended and restated bylaws added certain advance notice requirements for stockholders to propose director nominations or other business to be brought before an annual or special meeting of stockholders, which requirements include, among other things, the following:

advance notice from a stockholder properly to bring business before an annual meeting shall be delivered to, or mailed and received by, the secretary of the Company at our principal executive offices, not later than the close of business on the 90th calendar day, nor earlier than the close of business on the 120th calendar day in advance of the

date of the annual meeting;

any stockholder that proposes director nominations or other business must be (i) a stockholder of record at the time the advance notice is delivered by such stockholder to us and (ii) entitled to vote at the meeting;

no public announcement by us of an adjustment or postponement of an annual meeting shall commence or extend a new time period for the giving of the advance notice by any stockholder;

in addition to other information specified in our Bylaws, a stockholder's advance notice with respect to any proposed business, other than director nominations, shall set forth (i) the text of the proposal, including the text of any resolutions or amendments to the Bylaws proposed for consideration, (ii) any material interest in such business of such stockholder and the beneficial owners, if any, on whose behalf the proposal is made, (iii) a description of any agreement, arrangement or understanding with respect to the proposal between or among the stockholder and any beneficial owner, their affiliates and any others acting in concert, (iv) a description of any agreement, arrangement or understanding (including, among other things, derivative or short positions, profit interests, hedging transactions and borrowed or loaned shares) that has been entered into by, or on behalf of, the stockholder and any beneficial owner, (v) a representation that the stockholder is a stockholder of record entitled to vote at the meeting and intends to appear in person or by proxy at the meeting to propose such business, and (vi) a representation whether the stockholder or any beneficial owner intends or is part of a group which intends to deliver a proxy statement or form of proxy to stockholders required to approve or adopt the proposal or otherwise to solicit proxies or votes from stockholders in support of such proposal;

a proposed director nominee may be required to furnish other information as we may reasonably require to determine the eligibility of the proposed nominee to serve as a director of the Company in addition to the information explicitly required in the Bylaws;

the stockholder proposing director nominations or other business shall update and supplement the advance notice so that the information provided shall be true and correct as of the record date for the meeting and as of the date that is 10 business days prior to the meeting; and

the chairman of the meeting shall have the power and duty to (i) determine whether any director nomination or other business was made or proposed in accordance with the procedures set forth in the Bylaws, and (ii) to declare that any director nomination or other business shall not be made or transacted at the meeting if it was not made or proposed in accordance with such procedures; and unless otherwise required by law, any director nomination or other business shall not be made or transacted if the stockholder (or a qualified representative of the stockholder) does not appear at the meeting to present the director nominee or other proposed business.

Other revisions set forth in the Bylaws include that (i) the Board can fix separate record dates for determining stockholders entitled to receive notice of a stockholder meeting and for determining stockholders entitled to vote at the meeting; (ii) we may hold a stockholder meeting by means of remote communications; (iii) any stockholder seeking to have the stockholders authorize or take corporate action by written consent shall, by written notice to the secretary of the Company, request that the Board fix a record date and the Board shall adopt a resolution fixing the record date in all events within ten calendar days after a request is received; (iv) a written consent of stockholders shall not be effective unless a written consent signed by a sufficient number of stockholders to take such action is received by the Company within 60 calendar days of the earliest dated written consent received; (v) the authorized size of the Board shall not be set forth in the Bylaws but shall be determined by the Board by Board resolution from time to time; (vi) the Board has the exclusive power to fill any vacancies and newly created directorships resulting from any increase in the authorized number of directors and the stockholders shall not have the power to fill such vacancies; and (vii) the Bylaws may be amended by either the Board or the affirmative vote of at least 66 2/3% of the voting power of our outstanding shares of capital stock.

Section 203 of the Delaware General Corporation Law

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

before such date, the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;

upon completion of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction began, excluding for purposes of determining the voting stock outstanding (but not the outstanding voting stock owned by the interested stockholder) those shares owned (i) by persons who are directors and also officers and (ii) employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or

on or after such date, the business combination is approved by the board of directors and authorized at an annual or special meeting of the stockholders, and not by written consent, by the affirmative vote of at least 66 2/3 % of the outstanding voting stock that is not owned by the interested stockholder.

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

any merger or consolidation involving the corporation and the interested stockholder;

any sale, lease, transfer, pledge or other disposition of 10% or more of the assets of the corporation to or with the interested stockholder;

subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;

any transaction involving the corporation that has the effect of increasing the proportionate share of the stock or any class or series of the corporation beneficially owned by the interested stockholder; or

the receipt by the interested stockholder of the benefit of any loss, advances, guarantees, pledges or other financial benefits by or through the corporation.

In general, Section 203 defines an interested stockholder as an entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation or any entity or person affiliated with or controlling or controlled by such entity or person.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company, located at 6201 15th Avenue, Brooklyn, New York 11219. Its phone number is (800)-937-5449. The transfer agent for any series of preferred stock, warrants, rights or units that we may offer under this prospectus will be named and described in the prospectus supplement for that series.

NASDAQ Capital Market Listing

Our common stock is listed on the NASDAQ Capital Market under the symbol "CLSN."

DESCRIPTION OF DEBT SECURITIES

The debt securities may be either secured or unsecured and will either be our senior debt securities or our subordinated debt securities. The debt securities will be issued under one or more separate indentures between a trustee and us. Senior debt securities will be issued under a senior indenture and subordinated debt securities will be issued under a subordinated indenture. Together, the senior indenture and subordinated indenture are called indentures. The prospectus, together with the applicable prospectus supplement, will describe all the material terms of a particular series of debt securities.

The following is a summary of selected terms, provisions and definitions of the indentures and debt securities to which any prospectus supplement may relate. The summary of selected provisions of the indentures and the debt securities appearing below is not complete and are subject to, and qualified entirely by reference to, all of the provisions of the applicable indenture and certificates evidencing the applicable debt securities. For additional information, you should look at the applicable indenture and the certificate evidencing the applicable debt security that is filed as an exhibit to the registration statement that includes the prospectus. In this description of the debt securities, the words “Celsion,” “we,” “us” or “our” refer only to Celsion Corporation and not to any subsidiaries we may have.

Each prospectus supplement and any supplemental indenture may add, delete, update or change the terms of the debt securities as described in this prospectus. If any particular terms of the indenture or debt securities described in a prospectus supplement differ from any of the terms described below, then the terms described below will be deemed to have been superseded by that prospectus supplement.

General

Debt securities may be issued in separate series without limitation as to aggregate principal amount. We may specify a maximum aggregate principal amount for the debt securities of any series.

We are not limited as to the amount of debt securities we may issue under the indentures. Unless otherwise provided in a prospectus supplement, a series of debt securities may be reopened to issue additional debt securities of such series.

The prospectus supplement relating to a particular series of debt securities will set forth:

whether the debt securities are senior or subordinated;

the offering price;

the title;

any limit on the aggregate principal amount;

the person who shall be entitled to receive interest, if other than the record holder on the record date;

the date or dates the principal will be payable;

the interest rate or rates, which may be fixed or variable, if any, the date from which interest will accrue, the interest payment dates and the regular record dates, or the method for calculating the dates and rates;

the place where payments may be made;

any mandatory or optional redemption provisions or sinking fund provisions and any applicable redemption or purchase prices associated with these provisions;

if issued other than in denominations of U.S. \$1,000 or any multiple of U.S. \$1,000, the denominations in which the debt securities shall be issuable;

if applicable, the method for determining how the principal, premium, if any, or interest will be calculated by reference to an index or formula;

if other than U.S. currency, the currency or currency units in which principal, premium, if any, or interest will be payable and whether we or a holder may elect payment to be made in a different currency;

the portion of the principal amount that will be payable upon acceleration of maturity, if other than the entire principal amount;

the principal amount payable at stated maturity will not be determinable as of any date prior to stated maturity, the amount or method for determining the amount which will be deemed to be the principal amount;

if applicable, whether the debt securities shall be subject to the defeasance provisions described below under "Satisfaction and Discharge; Defeasance" or such other defeasance provisions specified in the applicable prospectus supplement for the debt securities;

any conversion provisions;

whether the debt securities will be issuable in the form of a global security;

any subordination provisions applicable to the subordinated debt securities if different from those described below under "Subordinated Debt Securities";

any paying agents, authenticating agents, security registrars or other agents for the debt securities;

any provisions relating to any security provided for the debt securities, including any provisions regarding the circumstances under which collateral may be released or substituted;

any deletions of, or changes or additions to, the events of default, acceleration provisions or covenants;

any provisions relating to guaranties for the securities and any circumstances under which there may be additional obligors; and

any other specific terms of such debt securities.

Unless otherwise specified in the prospectus supplement, the debt securities will be registered debt securities. Debt securities may be sold at a substantial discount below their stated principal amount, bearing no interest or interest at a rate that at time of issuance is below market rates. The U.S. federal income tax considerations applicable to debt securities sold at a discount will be described in the applicable prospectus supplement.

Exchange and Transfer

Debt securities may be transferred or exchanged at the office of the security registrar or at the office of any transfer agent designated by us. We will not impose a service charge for any transfer or exchange, but we may require holders to pay any tax or other governmental charges associated with any transfer or exchange.

In the event of any partial redemption of debt securities of any series, we will not be required to:

issue, register the transfer of, or exchange, any debt security of that series during a period beginning at the opening of business 15 days before the day of mailing of a notice of redemption and ending at the close of business on the day of the mailing; or

register the transfer of or exchange any debt security of that series selected for redemption, in whole or in part, except the unredeemed portion being redeemed in part.

Initially, we intend to appoint the trustee as the security registrar. Any transfer agent, and any other security registrar, will be named in the prospectus supplement. We may designate additional transfer agents or change transfer agents or change the office of the transfer agent. However, we will be required to maintain a transfer agent in each place of payment for the debt securities of each series.

Global Securities

The debt securities of any series may be represented, in whole or in part, by one or more global securities. Each global security will:

be registered in the name of a depositary that we will identify in a prospectus supplement;

be deposited with the depositary or nominee or custodian; and

bear any required legends.

No global security may be exchanged in whole or in part for debt securities registered in the name of any person other than the depositary or any nominee unless:

the depositary has notified us that it is unwilling or unable to continue as depositary or has ceased to be qualified to act as depositary;

an event of default is continuing with respect to the debt securities of the applicable series; or

any other circumstance described in a prospectus supplement has occurred permitting or requiring the issuance of any such security.

As long as the depositary, or its nominee, is the registered owner of a global security, the depositary or nominee will be considered the sole owner and holder of the debt securities represented by the global security for all purposes under the indentures. Except in the above limited circumstances, owners of beneficial interests in a global security will not be:

entitled to have the debt securities registered in their names;

entitled to physical delivery of certificated debt securities; or

considered to be holders of those debt securities under the indenture.

Payments on a global security will be made to the depositary or its nominee as the holder of the global security. Some jurisdictions have laws that require that certain purchasers of securities take physical delivery of such securities in definitive form. These laws may impair the ability to transfer beneficial interests in a global security.

Institutions that have accounts with the depositary or its nominee are referred to as “participants.” Ownership of beneficial interests in a global security will be limited to participants and to persons that may hold beneficial interests through participants. The depositary will credit, on its book-entry registration and transfer system, the respective principal amounts of debt securities represented by the global security to the accounts of its participants.

Ownership of beneficial interests in a global security will be shown on and effected through records maintained by the depositary, with respect to participants’ interests, or any participant, with respect to interests of persons held by participants on their behalf.

Payments, transfers and exchanges relating to beneficial interests in a global security will be subject to policies and procedures of the depositary. The depositary policies and procedures may change from time to time. Neither any trustee nor we will have any responsibility or liability for the depositary’s or any participant’s records with respect to

beneficial interests in a global security.

Payment and Paying Agents

Unless otherwise indicated in a prospectus supplement, the provisions described in this paragraph will apply to the debt securities. Payment of interest on a debt security on any interest payment date will be made to the person in whose name the debt security is registered at the close of business on the regular record date. Payment on debt securities of a particular series will be payable at the office of a paying agent or paying agents designated by us. However, at our option, we may pay interest by mailing a check to the record holder. The corporate trust office will be designated as our sole paying agent.

We may also name any other paying agents in a prospectus supplement. We may designate additional paying agents, change paying agents or change the office of any paying agent. However, we will be required to maintain a paying agent in each place of payment for the debt securities of a particular series.

All moneys paid by us to a paying agent for payment on any debt security that remain unclaimed for a period ending the earlier of (i) 10 business days prior to the date the money would be turned over to the applicable state; or (ii) at the end of two years after such payment was due, will be repaid to us. Thereafter, the holder may look only to us for such payment.

No Protection in the Event of a Change of Control

Unless otherwise indicated in a prospectus supplement with respect to a particular series of debt securities, the debt securities will not contain any provisions that may afford holders of the debt securities protection in the event we have a change in control or in the event of a highly leveraged transaction (whether or not such transaction results in a change in control).

Covenants

Unless otherwise indicated in a prospectus supplement, the debt securities will not contain any financial or restrictive covenants, including covenants restricting either us or any of our subsidiaries from incurring, issuing, assuming or guarantying any indebtedness secured by a lien on any of our property or capital stock or that of any subsidiary, or restricting either us or any of our subsidiaries from entering into sale and leaseback transactions.

Consolidation, Merger and Sale of Assets

Unless we indicate otherwise in a prospectus supplement, we may not consolidate with or merge into any other person, in a transaction in which we are not the surviving corporation, or convey, transfer or lease our properties and assets substantially as an entirety to, any person, unless:

the successor entity, if any, is a U.S. corporation, limited liability company, partnership or trust;

the successor entity assumes our obligations on the debt securities and under the indentures;

immediately after giving effect to the transaction, no default or event of default shall have occurred and be continuing; and

certain other conditions are met.

Events of Default

Unless we indicate otherwise in a prospectus supplement, the following will be events of default for any series of debt securities under the indentures:

(1) we fail to pay principal of or any premium on any debt security of that series when due and payable and our failure continues for 90 days and the time for payment has not been validly extended;

(2) we fail to pay any interest on any debt security of that series when due and payable and our failure continues for 90 days and the time for payment has not been validly extended;

- (3) we fail to deposit any sinking fund payment when due and the time for payment has not been validly extended;
- (4) we fail to perform any other covenant in the indenture and such failure continues for 90 days after we are given the notice required in the indentures; and
- (5) certain events including our bankruptcy, insolvency or reorganization.

Additional or different events of default applicable to a series of debt securities may be described in a prospectus supplement. An event of default of one series of debt securities is not necessarily an event of default for any other series of debt securities.

The trustee may withhold notice to the holders of any default, except defaults in the payment of principal, premium, if any, interest, any sinking fund installment on, or with respect to any conversion right of, the debt securities of such series. However, the trustee must consider it to be in the interest of the holders of the debt securities of such series to withhold this notice.

Unless we indicate otherwise in a prospectus supplement, if an event of default, other than an event of default described in clause (5) above, shall occur and be continuing, either the trustee or the holders of at least a 25% in aggregate principal amount of the outstanding securities of that series may declare the principal amount of the debt securities of that series, or if any debt securities of that series are original issue discount securities, such other amount as may be specified in the applicable prospectus supplement, in each case together with accrued and unpaid interest, if any, thereon, to be due and payable immediately.

If an event of default described in clause (5) above shall occur, the principal amount of all the debt securities of that series, or if any debt securities of that series are original issue discount securities, such other amount as may be specified in the applicable prospectus supplement, in each case together with accrued and unpaid interest, if any, thereon, will automatically become immediately due and payable. Any payment by us on the subordinated debt securities following any such acceleration will be subject to the subordination provisions described below under "Subordinated Debt Securities."

After acceleration the holders of a majority in aggregate principal amount of the outstanding securities of that series may, under certain circumstances, rescind and annul such acceleration if all events of default, other than the non-payment of accelerated principal, or other specified amounts, have been cured or waived.

Other than the duty to act with the required care during an event of default, the trustee will not be obligated to exercise any of its rights or powers at the request of the holders unless the holders shall have offered to the trustee reasonable indemnity. Generally, the holders of a majority in aggregate principal amount of the outstanding debt securities of any series will have the right to direct the time, method and place of conducting of any proceeding for any remedy available to the trustee or exercising any trust or power conferred on the trustee.

A holder will not have any right to institute any proceeding under the indentures, or for the appointment of a receiver or a trustee, or for any other remedy under the indentures, unless:

- (1) the holder has previously given to the trustee written notice of a continuing event of default with respect to the debt securities of that series;
- (2) the holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series have made a written request and have offered reasonable indemnity to the trustee to institute the proceeding; and
- (3) the trustee has failed to institute the proceeding and has not received direction inconsistent with the original request from the holders of a majority in aggregate principal amount of the outstanding debt securities of that series within 60 days after the original request.

Holders may, however, sue to enforce the payment of principal, premium or interest on any debt security on or after the due date or to enforce the right, if any, to convert any debt security (if the debt security is convertible) without following the procedures listed in (1) through (3) above.

We will furnish the trustee an annual statement by our officers as to whether or not we are in default in the performance of the conditions and covenants under the indenture and, if so, specifying all known defaults.

Modification and Waiver

Unless we indicate otherwise in a prospectus supplement, the applicable trustee and we may make modifications and amendments to an indenture with the consent of the holders of a majority in aggregate principal amount of the outstanding securities of each series affected by the modification or amendment.

We may also make modifications and amendments to the indentures without the consent of the holders, for certain purposes including, but not limited to:

providing for our successor to assume the covenants under the indenture;

adding covenants or events of default for the benefit of the holders;

making certain changes to facilitate the issuance of the securities;

securing the securities;

providing for a successor trustee or additional trustees;

curing any defects, ambiguities or inconsistencies, provided that such modification or amendment shall not materially and adversely affect the holders;

providing for guaranties of, or additional obligors on, the securities;

permitting or facilitating the defeasance and discharge of the securities; and

other changes specified in the indenture

However, neither the trustee nor we may make any modification or amendment without the consent of the holder of each outstanding security of that series affected by the modification or amendment if such modification or amendment would:

change the stated maturity of any debt security;

reduce the principal, premium, if any, or interest on any debt security;

reduce the principal of an original issue discount security or any other debt security payable on acceleration of maturity;

change the place of payment or the currency in which any debt security is payable;

if subordinated debt securities, modify the subordination provisions in a materially adverse manner to the holders; or

change the provisions in the indenture that relate to modifying or amending the indenture.

Satisfaction and Discharge; Defeasance

We may be discharged from our obligations on the debt securities of any series that have matured or will mature or be redeemed within one year if we deposit sufficient funds with the trustee to pay all the principal, interest and any premium due to the stated maturity date or redemption date of the debt securities.

Each indenture contains a provision that permits us to elect either or both of the following:

We may elect to be discharged from all of our obligations, subject to limited exceptions, with respect to any series of debt securities then outstanding. If we make this election, the holders of the debt securities of the series will not be entitled to the benefits of the indenture, except for the rights of holders to receive payments on debt securities or the registration of transfer and exchange of debt securities and replacement of lost, stolen or mutilated debt securities.

We may elect to be released from our obligations under some or all of any financial or restrictive covenants applicable to the series of debt securities to which the election relates and from the consequences of an event of default resulting from a breach of those covenants.

To make either of the above elections, we must deposit in trust with the trustee sufficient funds to pay in full the principal, interest and premium on the debt securities. This amount may be made in cash and/or U.S. government obligations or, in the case of debt securities denominated in a currency other than U.S. dollars, foreign government obligations. As a condition to either of the above elections, for debt securities denominated in U.S. dollars we must deliver to the trustee an opinion of counsel that the holders of the debt securities will not recognize income, gain or loss for U.S. federal income tax purposes as a result of the action.

“foreign government obligations” means, with respect to debt securities of any series that are denominated in a currency other than U.S. dollars:

direct obligations of the government that issued or caused to be issued the currency in which such securities are denominated and for the payment of which obligations its full faith and credit is pledged, or, with respect to debt securities of any series which are denominated in euros, direct obligations of certain members of the European Union for the payment of which obligations the full faith and credit of such members is pledged, which in each case are not callable or redeemable at the option of the issuer thereof; or

obligations of a person controlled or supervised by or acting as an agency or instrumentality of that government the timely payment of which is unconditionally guaranteed as a full faith and credit obligation by that government, which are not callable or redeemable at the option of the issuer thereof.

Notices

Notices to holders will be given by mail to the addresses of the holders in the security register.

Governing Law

Unless we provide otherwise in the applicable prospectus supplement, the indentures and the debt securities will be governed by, and construed under, the laws of the State of New York (including Sections 5-1401 and 5-1402 of the General Obligations Law of the State of New York).

No Personal Liability of Directors, Officers, Employees and Stockholders

No incorporator, stockholder, employee, agent, officer, director or subsidiary of ours will have any liability for any obligations of ours, or because of the creation of any indebtedness under the debt securities, the indentures or supplemental indentures. The indentures provide that all such liability is expressly waived and released as a condition of, and as a consideration for, the execution of such indentures and the issuance of the debt securities.

Regarding the Trustee

The indentures will limit the right of the trustee, should it become our creditor, to obtain payment of claims or secure its claims.

The trustee is permitted to engage in certain other transactions. However, if the trustee acquires any conflicting interest, and there is a default under the debt securities of any series for which it is trustee, the trustee must eliminate the conflict or resign.

Subordinated Debt Securities

The indebtedness evidenced by the subordinated debt securities of any series will be subordinated, to the extent provided in the subordinated indenture and the applicable prospectus supplement, to the prior payment in full, in cash or other payment satisfactory to the holders of senior debt, of all senior debt, including any senior debt securities.

Upon any distribution of our assets upon any dissolution, winding up, liquidation or reorganization, payments on the subordinated debt securities will be subordinated in right of payment to the prior payment in full in cash or other payment satisfactory to holders of senior debt of all senior debt.

In the event of any acceleration of the subordinated debt securities because of an event of default, holders of any senior debt would be entitled to payment in full in cash or other payment satisfactory to holders of senior debt of all senior debt before the holders of subordinated debt securities are entitled to receive any payment or distribution.

We are required to promptly notify holders of senior debt or their representatives under the subordinated indenture if payment of the subordinated debt securities is accelerated because of an event of default.

Under the subordinated indenture, we may also not make payment on the subordinated debt securities if:

a default in the payment of senior debt occurs and is continuing beyond any grace period, which we refer to as a payment default; or

any other default occurs and is continuing with respect to designated senior debt that permits holders of designated senior debt to accelerate its maturity, and the trustee receives a payment blockage notice from us or some other person permitted to give the notice under the subordinated indenture, which we refer to as a non-payment default.

We may and shall resume payments on the subordinated debt securities:

in case of a payment default, when the default is cured or waived or ceases to exist, and

in case of a nonpayment default, the earlier of when the default is cured or waived or ceases to exist or 179 days after the receipt of the payment blockage notice if the maturity of the designated senior debt has not been accelerated.

No new payment blockage period may start unless 365 days have elapsed from the effectiveness of the prior payment blockage notice. No nonpayment default that existed or was continuing on the date of delivery of any payment blockage notice to the trustee shall be the basis for a subsequent payment blockage notice.

As a result of these subordination provisions, in the event of our bankruptcy, dissolution or reorganization, holders of senior debt may receive more, ratably, and holders of the subordinated debt securities may receive less, ratably, than our other creditors. The subordination provisions will not prevent the occurrence of any event of default under the subordinated indenture.

The subordination provisions will not apply to payments from money or government obligations held in trust by the trustee for the payment of principal, interest and premium, if any, on subordinated debt securities pursuant to the provisions described under "Satisfaction and Discharge; Defeasance," if the subordination provisions were not violated at the time the money or government obligations were deposited into trust.

If the trustee or any holder receives any payment that should not have been made to them in contravention of subordination provisions before all senior debt is paid in full in cash or other payment satisfactory to holders of senior debt, then such payment will be held in trust for the holders of senior debt.

Senior debt securities will constitute senior debt under the subordinated indenture.

Additional or different subordination provisions may be described in a prospectus supplement relating to a particular series of debt securities.

Definitions

"designated senior debt" means our obligations under any of our senior debt that expressly provides that it is "designated senior debt."

"indebtedness" means:

(1) all of our indebtedness, obligations and other liabilities for: borrowed money, including our obligations in respect of overdrafts, foreign exchange contracts, currency exchange agreements, interest rate protection agreements, and any loans or advances from banks, whether or not evidenced by notes or similar instruments; or evidenced by bonds, debentures, notes or similar instruments, whether or not the recourse of the lender is to the whole of our assets or to only a portion of our assets, other than any account payable or other accrued current liability or obligation incurred in

the ordinary course of business in connection with the obtaining of materials or services;

(2) all of our reimbursement obligations and other liabilities with respect to letters of credit, bank guarantees or bankers' acceptances;

(3) all of our obligations and liabilities in respect of leases required, in conformity with generally accepted accounting principles, to be accounted for as capitalized lease obligations on our balance sheet;

(4) all of our obligations and other liabilities under any other any lease or related document, including a purchase agreement, in connection with the lease of real property which provides that we are contractually obligated to purchase or cause a third party to purchase the leased property and thereby guarantee a minimum residual value of the leased property to the lessor and our obligations under such lease or related document to purchase or to cause a third party to purchase such leased property;

(5) all of our obligations with respect to an interest rate or other swap, cap or collar agreement or other similar instrument or agreement or foreign currency hedge, exchange, purchase or similar instrument or agreement;

(6) all of our direct or indirect guaranties or similar agreements in respect of, and obligations or liabilities to purchase or otherwise acquire or otherwise assure a creditor against loss in respect of, indebtedness, obligations or liabilities of another person of the kind described in clauses (1) through (5);

(7) any of our indebtedness or other obligations described in clauses (1) through (6) secured by any mortgage, pledge, lien or other encumbrance existing on property which is owned or held by us regardless of whether the indebtedness or other obligation secured thereby shall have been assumed by us; and

(8) any and all deferrals, renewals, extensions, refundings of, amendments, modifications or supplements to, any indebtedness, obligation or liability of the kind described in clauses (1) through (7).

“senior debt” means the principal of, premium, if any, interest, including all interest accruing subsequent to the commencement of any bankruptcy or similar proceeding, rent and all fees, costs, expenses and other amounts accrued or due on or in connection with our indebtedness, including all deferrals, renewals, extensions or refundings of, or modifications or supplements to, that indebtedness. Senior debt shall not include:

any debt that expressly provides it shall not be senior in right of payment to the subordinated debt securities or expressly provides that such indebtedness is on the same basis or “junior” to the subordinated debt securities; or

debt to any of our subsidiaries, a majority of the voting stock of which is owned, directly or indirectly, by us.

DESCRIPTION OF WARRANTS

We may issue warrants for the purchase of our common stock or preferred stock, in one or more series. We may issue warrants independently or together with common stock or preferred stock, and the warrants may be attached to or separate from these securities.

The following description, together with the additional information we may include in any applicable prospectus supplement or free writing prospectus, summarizes the material terms and provisions of the warrants that we may offer under this prospectus and the related warrant agreements and warrant certificates. While the terms summarized below will apply generally to any warrants that we may offer, we will describe the particular terms of any series of warrants in more detail in the applicable prospectus supplement or any applicable free writing prospectus. If we so indicate in the prospectus supplement or a free writing prospectus, the terms of any warrants offered under the applicable prospectus supplement may differ from the terms described below. However, no prospectus supplement or free writing prospectus shall fundamentally change the terms that are set forth in this prospectus or offer a security that is not registered and described in this prospectus at the time of its effectiveness. Specific warrant agreements will contain additional important terms and provisions and will be incorporated by reference as an exhibit to the registration statement that includes this prospectus or as an exhibit to a current report on Form 8-K.

General

We will describe in the applicable prospectus supplement the terms of the series of warrants being offered, including:

the offering price and aggregate number of warrants offered;

the currency for which the warrants may be purchased;

if applicable, the designation and terms of the securities with which the warrants are issued and the number of warrants issued with each such security or each principal amount of such security;

if applicable, the date on and after which the warrants and the related securities will be separately transferable;

the number of shares of common stock or preferred stock, as the case may be, purchasable upon the exercise of one warrant and the price at which these shares may be purchased upon such exercise;

if other than for cash, the property and manner in which the exercise price of the warrants may be paid;

the minimum number of warrants that may be exercisable at any time;

the effect of any merger, consolidation, sale or other disposition of our business on the warrant agreements and the warrants;

the terms of any rights to redeem or call the warrants;

any provisions for changes to or adjustments in the exercise price or number of securities issuable upon exercise of the warrants;

the dates on which the right to exercise the warrants will commence and expire;

the manner in which the warrant agreements and warrants may be modified;

a discussion of any material or special U.S. federal income tax consequences of holding or exercising the warrants;

the terms of the securities issuable upon exercise of the warrants; and

any other specific terms, preferences, rights or limitations of or restrictions on the warrants.

Before exercising their warrants, holders of warrants will not have any of the rights of holders of the securities purchasable upon such exercise, including the right to receive dividends, if any, or, payments upon our liquidation, dissolution or winding up or to exercise voting rights, if any.

Exercise of Warrants

Each warrant will entitle the holder to purchase the securities that we specify in the applicable prospectus supplement or free writing prospectus at the exercise price that we describe in the applicable prospectus supplement or free writing prospectus. Unless we otherwise specify in the applicable prospectus supplement or free writing prospectus, holders of the warrants may exercise the warrants at any time up to 5:00 P.M. Eastern Time on the expiration date that we set forth in the applicable prospectus supplement or free writing prospectus. After the close of business on the expiration date, unexercised warrants will become void.

Holders of the warrants may exercise the warrants by delivering the warrant certificate representing the warrants to be exercised together with specified information, and paying the required amount to the warrant agent in immediately available funds, as provided in the applicable prospectus supplement. We will set forth on the reverse side of the warrant certificate and in the applicable prospectus supplement or free writing prospectus the information that the holder of the warrant will be required to deliver to the warrant agent.

Upon receipt of the required payment and the warrant certificate properly completed and duly executed at the corporate trust office of the warrant agent or any other office indicated in the applicable prospectus supplement or free writing prospectus, we will issue and deliver the securities purchasable upon such exercise. If fewer than all of the

warrants represented by the warrant certificate are exercised, then we will issue a new warrant certificate for the remaining amount of warrants. If we so indicate in the applicable prospectus supplement, holders of the warrants may surrender securities as all or part of the exercise price for warrants.

Enforceability of Rights by Holders of Warrants

Each warrant agent will act solely as our agent under the applicable warrant agreement and will not assume any obligation or relationship of agency or trust with any holder of any warrant. A single bank or trust company may act as warrant agent for more than one issue of warrants. A warrant agent will have no duty or responsibility in case of any default by us under the applicable warrant agreement or warrant, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a warrant may, without the consent of the related warrant agent or the holder of any other warrant, enforce by appropriate legal action its right to exercise, and receive the securities purchasable upon exercise of, its warrants.

Governing Law

Unless we provide otherwise in the applicable prospectus supplement, the warrants and warrant agreements will be governed by and construed in accordance with the laws of the State of New York.

Enforceability of Rights by Holders of Warrants

Each warrant agent will act solely as our agent under the applicable warrant agreement and will not assume any obligation or relationship of agency or trust with any holder of any warrant. A single bank or trust company may act as warrant agent for more than one issue of warrants. A warrant agent will have no duty or responsibility in case of any default by us under the applicable warrant agreement or warrant, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a warrant may, without the consent of the related warrant agent or the holder of any other warrant, enforce by appropriate legal action its right to exercise, and receive the securities purchasable upon exercise of, its warrants.

DESCRIPTION OF RIGHTS

We may issue rights to purchase our common stock or preferred stock in one or more series. Rights may be issued independently or together with any other offered security and may or may not be transferable by the person purchasing or receiving the subscription rights. In connection with any rights offering to our stockholders, we may enter into a standby underwriting arrangement with one or more underwriters pursuant to which such underwriters will purchase any offered securities remaining unsubscribed after such rights offering. In connection with a rights offering to our stockholders, we will distribute certificates evidencing the rights and a prospectus supplement to our stockholders on the record date that we set for receiving rights in such rights offering.

The applicable prospectus supplement or free writing prospectus will describe the following terms of rights in respect of which this prospectus is being delivered:

the title of such rights;

the securities for which such rights are exercisable;

the exercise price for such rights;

the date of determining the security holders entitled to the rights distribution;

the number of such rights issued to each security holder;

the extent to which such rights are transferable;

if applicable, a discussion of the material United States federal income tax considerations applicable to the issuance or exercise of such rights;

the date on which the right to exercise such rights shall commence, and the date on which such rights shall expire (subject to any extension);

the conditions to completion of the rights offering;

any provisions for changes to or adjustments in the exercise price or number of securities issuable upon exercise of the rights;

the extent to which such rights include an over-subscription privilege with respect to unsubscribed securities;

if applicable, the material terms of any standby underwriting or other purchase arrangement that we may enter into in connection with the rights offering; and

any other terms of such rights, including terms, procedures and limitations relating to the exchange and exercise of such rights.

Each right will entitle the holder thereof the right to purchase for cash such amount of shares of common stock or preferred stock, or any combination thereof, at such exercise price as shall in each case be set forth in, or be determinable as set forth in, the prospectus supplement relating to the rights offered thereby. Rights may be exercised at any time up to the close of business on the expiration date for such rights set forth in the prospectus supplement. After the close of business on the expiration date, all unexercised rights will become void.

Rights may be exercised as set forth in the prospectus supplement relating to the rights offered thereby. Upon receipt of payment and the proper completion and due execution of the rights certificate at the corporate trust office of the rights agent or any other office indicated in the prospectus supplement, we will forward, as soon as practicable, the shares of common stock and/or preferred stock purchasable upon such exercise. We may determine to offer any unsubscribed offered securities directly to persons other than stockholders, to or through agents, underwriters or dealers or through a combination of such methods, including pursuant to standby underwriting arrangements, as set forth in the applicable prospectus supplement.

DESCRIPTION OF UNITS

We may issue, in one more series, units consisting of our common stock, preferred stock, warrants or rights for the purchase of common stock or preferred stock, or debt securities in any combination. While the terms we have summarized below will apply generally to any units that we may offer under this prospectus, we will describe the particular terms of any series of units in more detail in the applicable prospectus supplement or free writing prospectus. The terms of any units offered under a prospectus supplement may differ from the terms described below.

We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of unit agreement that describes the terms of the series of units we are offering, and any supplemental agreements, before the issuance of the related series of units. The following summaries of material terms and provisions of the units are subject to, and qualified in their entirety by reference to, all the provisions of the unit agreement and any supplemental agreements applicable to a particular series of units. We urge you to read the applicable prospectus supplements related to the particular series of units that we may offer under this prospectus, as well as any related free writing prospectuses, and the complete unit agreement and any supplemental agreements that contain the terms of the units.

General

Each unit will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately, at any time or at any time before a specified date.

We will describe in the applicable prospectus supplement or free writing prospectus the terms of the series of units being offered, including:

the designation and terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;

any provisions of the governing unit agreement that differ from those described below; and

any provisions for the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units.

The provisions described in this section, as well as those described under “Description of Capital Stock”, “Description of Debt Securities”, “Description of Warrants” and “Description of Rights”, will apply to each unit and to any common stock, preferred stock, warrant or right included in each unit, respectively.

Issuance in Series

We may issue units in such amounts and in such numerous distinct series as we determine.

Enforceability of Rights by Holders of Units

Each unit agent will act solely as our agent under the applicable unit agreement and will not assume any obligation or relationship of agency or trust with any holder of any unit. A single bank or trust company may act as unit agent for more than one series of units. A unit agent will have no duty or responsibility in case of any default by us under the applicable unit agreement or unit, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a unit may, without the consent of the related unit agent or the holder of any other unit, enforce by appropriate legal action its rights as holder under any security included in the unit.

PLAN OF DISTRIBUTION

We may sell the securities, from time to time, to or through underwriters or dealers, through agents or remarketing firms, or directly to one or more purchasers pursuant to:

underwritten public offerings;

negotiated transactions;

block trades;

“at the market offerings,” within the meaning of Rule 415(a)(4) of the Securities Act, to or through a market maker or into an existing trading market, on an exchange or otherwise, at prevailing market prices; or

through a combination of these methods.

We may distribute securities from time to time in one or more transactions:

at a fixed price or prices, which may be changed;

at market prices prevailing at the time of sale;

at prices related to such prevailing market prices; or

at negotiated prices.

A prospectus supplement or supplements will describe the terms of the offering of the securities, including:

the name or names of the underwriters, if any;

if the securities are to be offered through the selling efforts of brokers or dealers, the plan of distribution and the terms of any agreement, arrangement, or understanding entered into with broker(s) or dealer(s) prior to the effective

Edgar Filing: Celsion CORP - Form 424B5

date of the registration statement, and, if known, the identity of any broker(s) or dealer(s) who will participate in the offering and the amount to be offered through each;

the purchase price of the securities and the proceeds we will receive from the sale;

if any of the securities being registered are to be offered otherwise than for cash, the general purposes of the distribution, the basis upon which the securities are to be offered, the amount of compensation and other expenses of distribution, and by whom they are to be borne;

any delayed delivery arrangements;

any over-allotment options under which underwriters may purchase additional securities from us;

any agency fees or underwriting discounts and other items constituting agents' or underwriters' compensation;

any public offering price;

any discounts, commissions or commissions allowed or reallocated or paid to dealers;

the identity and relationships of any finders, if applicable; and

any securities exchange or market on which the securities may be listed.

Only underwriters named in the prospectus supplement will be underwriters of the securities offered by the prospectus supplement.

If underwriters are used in the sale, they will acquire the securities for their own account and may resell the securities from time to time in one or more transactions at a fixed public offering price or at varying prices determined at the time of sale. The obligations of the underwriters to purchase the securities will be subject to the conditions set forth in the applicable underwriting agreement. We may offer the securities to the public through underwriting syndicates represented by managing underwriters or by underwriters without a syndicate. Unless otherwise indicated in the prospectus supplement, subject to certain conditions, the underwriters will be obligated to purchase all of the securities offered by the prospectus supplement, other than securities covered by any over-allotment option. Any public offering price and any discounts or concessions allowed or reallocated or paid to dealers may change from time to time. We may use underwriters with whom we have a material relationship. We will describe in the prospectus supplement, naming the underwriter, the nature of any such relationship.

We may use a remarketing firm to offer the securities in connection with a remarketing arrangement upon their purchase. Remarketing firms will act as principals for their own account or as agents for us. These remarketing firms will offer or sell the securities pursuant to the terms of the securities. A prospectus supplement will identify any remarketing firm and the terms of its agreement, if any, with us and will describe the remarketing firm's compensation. Remarketing firms may be deemed to be underwriters in connection with the securities they remarket.

If we offer and sell securities through a dealer, we or an underwriter will sell the securities to the dealer, as principal. The dealer may resell the securities to the public at varying prices to be determined by the dealer at the time of resale. Any such dealer may be deemed to be an underwriter of the securities offered and sold. The name of the dealer and the terms of the transaction will be set forth in the applicable prospectus supplement.

We may sell securities directly or through agents we designate from time to time. We will name any agent involved in the offering and sale of securities and we will describe any commissions we will pay the agent in the prospectus supplement. Unless the prospectus supplement states otherwise, our agent will act on a best-efforts basis for the period of its appointment.

We may sell securities directly to one or more purchasers without using underwriters or agents. Underwriters, dealers and agents that participate in the distribution of the securities may be underwriters as defined in the Securities Act, and any discounts or commissions they receive from us and any profit on their resale of the securities may be treated as underwriting discounts and commissions under the Securities Act.

We may authorize agents or underwriters to solicit offers by certain types of institutional investors to purchase securities from us at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. We will describe the conditions to these contracts and the commissions we must pay for solicitation of these contracts in the prospectus supplement.

We may provide agents and underwriters with indemnification against civil liabilities, including liabilities under the Securities Act, or contribution with respect to payments that the agents or underwriters may make with respect to these liabilities. Agents and underwriters may engage in transactions with, or perform services for, us in the ordinary course of business.

We may offer new issues of securities with no established trading market. Any underwriters may make a market in these securities, but will not be obligated to do so and may discontinue any market making at any time without notice. We cannot guarantee the liquidity of the trading markets for any securities.

Any underwriter may engage in over-allotment, stabilizing transactions, short-covering transactions and penalty bids in accordance with Regulation M under the Exchange Act. Over-allotment involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum price. Syndicate-covering or other short-covering transactions involve purchases of the securities, either through exercise of the over-allotment option or in the open market after the distribution is completed, to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a stabilizing or covering transaction to cover short positions. Those activities may cause the price of the securities to be higher than it would otherwise be. If commenced, the underwriters may discontinue any of the activities at any time.

Any underwriters that are qualified market makers on The NASDAQ Capital Market may engage in passive market making transactions in the common stock on The NASDAQ Capital Market in accordance with Regulation M under the Exchange Act, during the business day prior to the pricing of the offering, before the commencement of offers or sales of the common stock. Passive market makers must comply with applicable volume and price limitations and must be identified as passive market makers. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for such security; if all independent bids are lowered below the passive market maker's bid, however, the passive market maker's bid must then be lowered when certain 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.

LEGAL MATTERS

The validity of the securities being offered hereby will be passed upon by O'Melveny & Myers LLP of Menlo Park, California.

EXPERTS

Stegman & Company, independent registered public accounting firm, has audited our financial statements included in our Annual Report on Form 10-K/A for the year ended December 31, 2011, as set forth in their report, which is incorporated by reference in this prospectus and elsewhere in the registration statement. Our financial statements are incorporated by reference in reliance on Stegman & Company's report, given on their authority as experts in accounting and auditing.

3,000,000 Shares of Common Stock

Placement Agent

Maxim Group LLC

Prospectus Supplement

May 27, 2015
