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April 5, 2016

VIA EDGAR

U.S. Securities and Exchange Commission Mail Stop 6010 Division of Corporation Finance 100 F Street, NE Washington, D.C. 20549

Attention: Suzanne Hayes, Assistant Director

Office of Healthcare and Insurance

Re: SEC Comment Letter, dated March 31, 2016

StemCells, Inc.

Form Pre 14A filed March 14, 2016

File No. 000-19871

Ladies and Gentlemen:

On behalf of StemCells, Inc. (the "Company"), this letter is being submitted to the Staff of the Securities and Exchange Commission (the "Staff") in response to the comments in the Staff's letter dated March 31, 2016 (the "March 31 Letter") regarding the Company's preliminary proxy statement, filed on March 14, 2016, in connection with the Company's 2016 annual stockholder meeting (the "2016 Proxy").

For reference purposes, the comments as reflected in the March 31 Letter are reproduced in bold in this letter and the corresponding responses of the Company are shown below each comment.

Accordingly, we supplementally advise you as follows:

Proposal Number 3, page 36

1. Rule 14a-4(a)(3) under the Securities Exchange Act of 1934 requires you to identify clearly and impartially each separate matter upon which you intend to act, whether or not related to or conditioned on the approval of other matters. In this regard, we note that you have combined two matters in Proposal 3. Please revise to unbundle Proposal 3 so that the reverse stock split of your common stock and the disproportionate decrease in the number of authorized shares of common stock following the reverse stock split are two separate proposals. If any of the proposals are mutually conditioned, please revise the proxy statement accordingly and provide appropriate

7707 Gateway Boulevard Newark, CA 94560 USA T +1 (510) 456-4000 • F +1 (510) 456-4001 www.stemcellsinc.com 56003253 2

disclosure regarding the effect of a negative vote on the related proposals. In the alternative, please provide your analysis as to why you do not believe that the reverse stock split and disproportionate decrease in authorized shares should be presented as separate proposals. For guidance, refer to Exchange Act Release 34-31326 (October 16, 1992) at Section II.H.

Company Response

We will unbundle Proposal Number 3 so that the reverse stock split and the disproportionate decrease in the number of authorized shares of common stock are two separate proposals. We will add disclosure relating to the interconnection between the two proposals, because the reduction in authorized capital can only occur if the Company successfully completes the Reverse Stock Split, as described in Proposal Number 3.

Accordingly, as requested by the Staff, we will revise the 2016 Proxy so that Proposal Number 3 relates solely to the Company's proposed Reverse Stock Split. Newly created Proposal Number 4 will relate solely to the Company's proposal to decrease its authorized share capital from 226 million shares (consisting of 225,000,000 shares of common stock and 1,000,000 shares of undesignated preferred stock) to 201 million shares (consisting of 200,000,000 shares of common stock and 1,000,000 shares of undesignated preferred stock). We will renumber our current Proposal Number 4, concerning a possible equity line financing ("Existing Proposal Number 4"), as new Proposal Number 5.

We have attached to this letter our revised Proposal Number 3 and new Proposal Number 4.

Existing Proposal Number 4, page 44

2. We refer to your descriptions regarding the terms of the proposed transaction. Please revise your disclosure to identify the investor and disclose whether the investor is a preexisting investor. Additionally, we note you have provided some disclosure about the anticipated terms of the transaction, including how the price per share will be set for the initial purchase on the Commencement date; the issuance of shares equal to approximately 2% of the total dollar value of the equity line; and the 9.99% limitation on issuance. Please revise to clarify that these terms are subject to change and discuss the consequences if they do change.

The Company has not yet entered into an agreement with any investor for an equity line financing. If our stockholders approve Existing Proposal Number 4, we intend to enter into negotiations with one or more potential investors in the hope of securing an equity line arrangement on terms that would be no less favorable to the Company and its current stockholders than those described in Existing Proposal Number 4. However, we may not be able to secure an equity line arrangement. Moreover, the Company may choose to enter into a substantially different financing arrangement and/or an equity line arrangement that is materially different from the equity line described in Existing Proposal Number 4, in which case the Company would not need to use the stockholder vote to satisfy any stockholder approval standards under the Nasdaq Capital Market's continued listing requirements.

Because there is no existing contract or arrangement, we agree that the final terms of any financing arrangement entered into within three months following the company's 2016 annual stockholder meeting could be different from those described in the 2016 Proxy. We will therefore provide enhanced disclosures about the proposed transaction consistent with the Staff's request. Specifically, we will add the following paragraph to Existing Proposal Number 4 under the subheading "Terms of the Proposed Transaction":

At present, we do have not have an existing equity line agreement with any particular investor. If we obtain stockholder approval for the Equity Line arrangement, as described in this proposal, we expect to endeavor to secure an equity line commitment from an institutional investor with experience providing equity line arrangements to companies in our industry, such as Azimuth Opportunity, Crede Capital Group, Lincoln Park Capital, Redland Capital Partners, and Tarpon Bay Partners. We would expect the terms of any such equity line arrangement to be substantially similar to those described herein. However, we can give no assurance that we will be able to secure an equity line arrangement on substantially these terms, if at all. Final terms of the Equity Line, assuming one is entered into by the company within three months following our annual stockholder meeting, may be different than those described here. If our Board elects to enter into a different type of financing transaction or an equity line financing on substantially different terms than those described here, stockholder approval of this Proposal Number 5 may not satisfy any stockholder vote standards under the Nasdaq Capital Market's continued listing requirements.

3. We refer to your disclosure on page 46 that you have outstanding warrants with "full ratchet" price protection which could result in additional dilution. Please define the term "full ratchet" and provide additional disclosure to explain the potential effects of such provisions on current stockholders.

Company Response

We will add additional disclosure concerning our existing warrants with "full ratchet" price protection. Per the Staff's request, we will change the third paragraph under the heading "Effect on Currently Outstanding Common Stock," found on page 46, to read substantially as follows:

In addition, we have outstanding warrants to acquire up to 82,605,761 shares of our common stock at an exercise price per share (in other words, a "strike price" per share) ranging from \$0.2999998 to \$1.80, meaning that these warrant holders can elect, until the expiry of their warrants, to purchase additional shares of our common stock at a price ranging from \$0.2999998 to \$1.80 per share. However, approximately half of these warrants contain "full ratchet" price protection, which means that the per share strike price for these warrants can be reset, under certain circumstances, to a lower per share strike price. Most commonly, this occurs when the company issues additional shares of common stock in a financing at an imputed per share price below the warrants' then-existing per share strike price. Doing so results in the warrants' per share strike price adjusting down to the per share price of the newly issued shares.

An adjustment to the per share strike price could result in substantial additional dilution to our existing stockholders. For example, as of April 1, 2016, we had the following outstanding warrants with full ratchet price protection:

	Total Shares		
	Underlying	Current Strike	Warrant Expiration
Description of Warrants	the Warrants	Price (per shr)	Date
Series A Warrants (December 2011 financing)	6,936,880	\$0.2999998	Dec 2016
Series A Warrants (March 2016 financing)	15,331,165	\$0.2999998	Mar 2018
Series B Warrants (March 2016 financing)	22,996,747	\$ 0.42	Mar 2022

Therefore, if we were to sell additional shares of common stock under the Equity Line at a price per share below \$0.42 per share but above \$0.30 per share, warrants to acquire up to approximately 22 million additional shares of common stock would have their strike price lowered to the sales price under the Equity Line. Similarly, if we were to sell additional shares of common stock under the Equity Line at a price per share below \$0.2999998 per share, then warrants entitling holders to purchase up to approximately 45 million additional shares of common stock would reset to the lower per share purchase price of the sale under the Equity Line.

4. Please revise your disclosure on page 46 to provide additional information regarding your expected use of proceeds from any sales under the Purchase Agreement. See Item 11(c) of Schedule 14A.

We will augment our disclosure with respect to our anticipated use of proceeds to read substantially as follows:

Use of Proceeds.

We intend to use any net proceeds raised through the Equity Line for general corporate purposes, including working capital, capital expenditures, research and development expenditures and clinical trial expenditures. A portion of the net proceeds may also be used for the acquisition of businesses, products and technologies that are complementary to ours, or for other strategic purposes, although we have no current understandings, commitments or agreements to do so. Pending use of the net proceeds, we intend to invest the net proceeds in short-term, interest-bearing, investment-grade securities.

Please be advised that, in connection with the Staff's comments in the March 31 Letter, the Company hereby acknowledges that (i) the Company is responsible for the adequacy and accuracy of the disclosure in the above-referenced filing; (ii) the Staff's comments or changes to disclosure in response to the Staff's comments do not foreclose the U.S. Securities Exchange Commission (the "Commission") from taking any action with respect to the filing; and (iii) it is the Staff's position that the Company may not assert the Staff's comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

We hope that the foregoing has been responsive to the Staff's comments. If you should have any questions about this letter or require any further information, please call the undersigned at (510) 475-4122.

Very truly yours,

/s/ Kenneth B. Stratton

Kenneth B. Stratton General Counsel

Attachments/

Proposal Number 3 – Approval of Amendment to the Company's Certificate of Incorporation to Effect a Reverse Stock Split Proposal Number 4 – Approval of Amendment to the Company's Certificate of Incorporation to Decrease Authorized Capital

PROPOSAL NUMBER 3

Approval of Amendment to the Company's Certificate of Incorporation to Effect a Reverse Stock Split

General

Our Board of Directors has unanimously adopted a resolution declaring advisable and recommending to the stockholders for their approval a proposal to amend the company's restated certificate of incorporation, as amended to date, to effect a reverse stock split of the company's issued and outstanding common stock at any whole number ratio between, and inclusive of, one for ten and one for fifteen (the "Reverse Stock Split"). Approval of this Proposal Number 3 will grant our Board the authority, without further action by the stockholders, to carry out the Reverse Stock Split, at any time within three months after the date stockholder approval for the Reverse Stock Split is obtained from our stockholders, with the exact exchange ratio and timing of the Reverse Stock Split (if at all) to be determined at our Board's discretion. Our Board's decision whether or not (and when) to effect a Reverse Stock Split (and at what whole number ratio to effect the Reverse Stock Split) will be based on a number of factors, including market conditions, existing and anticipated trading prices for our common stock and the continued listing requirements of the NASDAQ Capital Market.

A sample form of the certificate of amendment relating to this Proposal Number 3, which we would file with the Secretary of State of the State of Delaware to carry out the Reverse Stock Split, is attached to this proxy statement as Schedule 1 (the "First Amendment").

As explained below, we are asking our stockholders to approve this Proposal Number 3 because we believe a Reverse Stock Split will result in a higher price per share for the outstanding shares of our common stock, which should enable us to maintain our listing on NASDAQ and make our stock more marketable to investors, retail and institutional alike, as investors often have restrictions associated with, or concerns about investing in, "penny" or other low priced stocks. In addition, as explained below, the Reverse Stock Split, if approved by our stockholders and implemented by our Board, would result in a significant increase in the number of authorized shares of common stock available to us for future issuance to fund our continued operations and to grow our business.

What to Expect from a Reverse Stock Split

If approved by our stockholders and Board, the Reverse Stock Split would be implemented simultaneously for all of our then-outstanding common stock (the "Old Shares") and the exchange ratio would be the same for all of our issued and outstanding shares of common stock. The Reverse Stock Split would affect all of our stockholders uniformly and would not affect any stockholder's percentage ownership interests in the company, except to the extent that the Reverse Stock Split results in any of our stockholders owning a fractional share, because fractional shares would be rounded up to the nearest whole share. Shares of common stock issued pursuant to the Reverse Stock Split (the "New Shares") would remain fully paid and nonassessable. The Reverse Stock Split would not affect our continuing to be subject to the periodic reporting requirements of the Securities Exchange Act of 1934, as amended. Upon becoming effective, the Reverse Stock Split would automatically convert outstanding Old Shares into a smaller fraction of New Shares, depending upon which conversion ratio our Board may select. Outstanding derivative securities exercisable for, or convertible into, our common stock would be proportionally adjusted, as would the exercise and conversion prices of those derivative securities.

The information in the following table summarizes the possible effect of the Reverse Stock Split based upon the company's issued and outstanding equity, as of April 1, 2016:

Split Ratio for Issued and Outstanding Shares	Common Stock Outstanding after the Reverse Stock Split (1)	Warrant and Option Shares Reserved after the Reverse Stock Split (1)	Common Stock Authorized after the Reverse Stock Split	Common Stock Authorized but Unissued and Unreserved after the Reverse Stock Split (2)
1 for 10	13,922,256	9,298,862	225,000,000	201,778,882
1 for 11	12,656,596	8,453,511	225,000,000	203,889,893
1 for 12	11,601,880	7,749,051	225,000,000	205,649,069
1 for 13	10,709,427	7,152,971	225,000,000	207,137,602
1 for 14	9,944,468	6,642,044	225,000,000	208,413,488
1 for 15	9,281,504	6,199,241	225,000,000	209,519,255

Post-Split

1) As of April 1, 2016, the company had the following issued and outstanding equity: (i) 139,222,551 shares of common stock; (ii) equity awards (options and RSUs) to acquire up to 10,382,850 shares of common stock, and (iii) warrants to acquire up to 82,605,761 shares of common stock, although approximately 23 million of these warrant shares are tied to the company's outstanding Series B warrants, which are only exercisable if and when the company has increased its available share capital by at least 23 million shares of common stock.

(2) The actual number of shares of common stock available after the Reverse Stock Split may be higher or lower depending on the number of fractional shares that are rounded up in the Reverse Stock Split and as the result of rounding calculations for outstanding equity awards.

As demonstrated in the above table, the Reverse Stock Split would, if approved: (i) decrease the number of outstanding shares of common stock by more than 125 million shares, (ii) decrease the number of shares needed to satisfy outstanding options, RSUs and warrants by more than 85 million shares, and (iii) maintain the company's authorized number of shares of common stock at 225 million. As of April 1, 2016, the company had approximately 16 million authorized, but unissued and available, shares of common stock. Consequently, the Reverse Stock Split would have the important effect of increasing the number of authorized and available shares of common stock by approximately 200 million shares, or about thirteen-fold.

In addition, all other things being equal, a reverse stock split by a publicly traded company reduces the number of shares outstanding but leaves the market capitalization of the company the same, which should increase the price per share of the company's stock. Put another way, after a reverse stock split, the enterprise value of the company is spread over fewer shares and so the per share price of the stock should be commensurately higher. As an example, a hypothetical company with a market value of \$50 million and 100 million shares outstanding would have a trading price of \$0.50 per share (\$50 million divided by 100 million), while the same company with only 25 million shares outstanding would have a trading price of \$2.00 per share (\$50 million divided by 25 million). We can therefore anticipate that the Reverse Stock Split would proportionately increase the per share trading price of our outstanding common stock by an amount approximately equal to the inverse of the ratio selected by the Board (for example, an increase of 12 times current trading price for a one-for-twelve Reverse Stock Split).

Rationale for a Reverse Stock Split

The rationale for seeking approval for the Reverse Stock Split are twofold. First, as explained above, the Reverse Stock Split would increase our available number of shares of common stock for future issuance by approximately 200 million shares. These shares could be used to raise additional capital needed to fund our operations as well as to acquire assets or other rights needed to help grow our business, although at this time we do not have any specific plans to issue additional shares of common stock other than as disclosed in these proxy materials or otherwise in our filings with the SEC. Second, because we can anticipate the Reverse Stock Split resulting in an increase in our per share stock price, we believe it is the most appropriate way to address our previously disclosed failure to satisfy NASDAQ's continue listing requirements, as explained below.

Our common stock trades on the NASDAQ Capital Market, which we believe helps support and maintain stock liquidity and company recognition for our stockholders. Companies listed on the NASAQ Capital Market, however, are subject to various rules and requirements imposed by the NASDAQ Stock Market which must be satisfied in order to continue having their stock listed on the exchange (these are called the NASDAQ's continued listing standards). One of these standards is the "minimum bid price" requirement, which requires that the bid price of the stock of listed companies be at least \$1.00 per share. A listed company risks being delisted and removed from the NASDAQ Capital Market if the closing bid price of its stock remains below \$1.00 per share for an extended period of time.

The closing bid price of our common stock has been below \$1.00 per share since April 13, 2015. On May 14, 2015, we received a delisting determination letter from the NASDAQ Stock Market indicating that we were at risk of delisting for failure to remain in compliance with the minimum bid price standard set forth in NASDAQ Marketplace Rule 5550(a)(2). In accordance with NASDAQ Listing Rule 5810(c)(3)(A), we had 180 calendar days, or until November 10, 2015, to regain compliance with the minimum bid price requirement. To regain compliance with the minimum bid price requirement of the NASDAQ Capital Market, the closing bid price per share of our common stock would have to be \$1.00 or higher for a minimum of ten consecutive business days during this initial 180-day compliance period. However, this did not happen, and on November 11, 2015, we were notified by NASDAQ that we had not regained compliance with the minimum bid price requirement. NASDAQ determined that we were nevertheless eligible under NASDAQ Listing Rule 5810(c)(3)(A) for an additional 180 calendar day period, or until May 9, 2016, to regain compliance. This second 180-day period relates exclusively to the bid price deficiency. Our common stock may be delisted during the 180 days for failure to maintain compliance with any other NASDAQ continued listing standards during this period, such as the minimum stockholders' equity standard among others. Our price per share and stockholders' equity at December 31, 2015 was \$0.42 and \$(334,000), respectively.

If compliance cannot be demonstrated by May 9, 2016, NASDAQ will provide written notification that our common stock will be delisted. At that time, however, we may appeal NASDAQ's determination to a Hearings Panel. We will be asked to provide a plan to regain compliance to the Hearings Panel. Historically the Hearings Panel has generally viewed a near-term reverse stock split as the only definitive plan acceptable to resolve a minimum bid price deficiency.

Potential Advantages of a Reverse Stock Split

Approval of this Proposal Number 3 would permit the company's Board of Directors, in its discretion to file the First Amendment with the Delaware Secretary of State in order to effect a reverse stock split of the company's issued and outstanding common stock at any whole number ratio between, and inclusive of, one for ten and one for fifteen. This, we believe, could provide a number of potential advantages, which we describe below. However, there can be no assurance that we will be able to regain compliance with the minimum bid price requirement or will otherwise be in compliance with other NASDAQ listing criteria.

Potential Advantage #1—Effective increase in the number of shares authorized for issuance. Because the Reverse Stock Split would decrease the number of shares of common stock outstanding and the number of shares reserved for outstanding derivative securities, such as warrants and options, without changing the company's authorized capital in any way, there would be a greater proportion of shares available for issuance following the Reverse Stock Split effected by the First Amendment (see the above table). We believe this effective increase in the number of shares authorized but unissued is important to the future growth of the company because we will need to raise significant additional funds in order to advance the company's various development programs, including the continued clinical testing of its HuCNS-SC® product candidate (purified human neural stem cells). These additional shares available for issuance would be used to raise money to fund the company's working capital and other corporate needs, for future acquisitions of assets, programs or businesses, and for other corporate purposes.

Adoption of the First Amendment, which would effectively increase the number of authorized shares, would not have any immediate effect on the proportionate voting power or other rights of the existing stockholders. However, upon issuance, any additional shares of authorized common stock issued after the amendment to the restated certificate of incorporation is effected would have rights identical to the currently outstanding shares of common stock. To the extent that the additional authorized shares of capital stock are issued in the future, they may decrease the voting rights of existing stockholders and, depending on the price at which they are issued, could be economically dilutive to existing stockholders and have a negative effect on the market price of the common stock. Current stockholders have no preemptive or similar rights, which means that current stockholders do not have a prior right to purchase any new issue of capital stock in order to maintain their proportionate ownership of the company. The company could also use the additional shares of capital stock for potential strategic transactions including, among other things, acquisitions, spin-offs, strategic partnerships, joint ventures, restructurings, divestitures, business combinations, and investments, although the company has no present plans to do so. The company cannot provide assurances that any such transactions will be consummated on favorable terms or at all, that they will enhance stockholder value or that they will not adversely affect the company's business or the trading price of our stock. However, we believe the effective increase in the company's authorized capital will be important to preserving the company's ability to opportunistically acquire assets and technologies to grow our business; a vote against this proposal could therefore hurt our ability to grow our business and complete our existing product development efforts.

Indeed, because we believe the shares of common stock currently available for issuance by the company (approximately 16 million shares) would be insufficient to continue operating our business as currently conducted or complete our ongoing Phase II Pathway Study in spinal cord injury, we believe the Reverse Stock Split is important for our continuing operations.

Potential Advantage #2—Maintain NASDAQ Capital Market Listing. We believe that having our common stock delisted from the NASDAQ Capital Market would be undesirable for our stockholders and potentially bad for our business. Among other things, being delisted could reduce the liquidity of our common stock. We also deem valuable our ticker symbol, which is easily recognized as "STEM" and which we could lose if we were delisted by the NASDAQ Capital Market. Also, being listed on the NASDAQ Capital Market carries with it certain prestige, and we feel it improves the recognition of our company.

While no assurances can be given, our Board believes that a reverse stock split, at a whole number exchange ratio ranging from one for ten (every ten shares outstanding would be combined into one share) to one for fifteen (every fifteen shares outstanding would be combined into one share), should result in an increase in the company's price per share, and thereby help the company meet the \$1.00 per share minimum bid price requirement.

While the company's stock price could trade above \$1.00 on its own accord over the next few months, our Board believes that it is in the company's best interests and in the interests of our stockholders to seek approval of the proposed First Amendment to effect the Reverse Stock Split, so that we can regain compliance even if the company's stock trading price does not increase above \$1.00 per share by May 9, 2016, the end of our second 180-day compliance period. Even if our common stock's closing bid price were to satisfy the minimum closing bid price requirements prior to approval of this Proposal Number 3, we may still effect the First Amendment if our stockholders approve this Proposal and our Board of Directors determines that effecting the Reverse Stock Split would be in the best interests of the company and its stockholders.

Potential Advantage #3—Facilitate Potential Future Financings. By preserving our NASDAQ Capital Market listing, we can continue to consider and pursue a wide range of future financing options to support our ongoing clinical development programs. To move our products through the clinical, regulatory and reimbursement processes, we will need to raise additional money. We believe being listed on a national securities exchange, such as the NASDAQ Capital Market, is valued highly by many investors such as large institutions. A listing on a national securities exchange also has the potential to create better liquidity and reduce volatility for buying and selling shares of our stock, which benefits our current and future stockholders.

Potential Advantage #4—Increase Our Common Stock Price to a Level More Appealing for Investors. We believe that the Reverse Stock Split could enhance the appeal of our common stock to the financial community, including institutional investors, and the general investing public. We believe that a number of institutional investors and investment funds are reluctant to invest in lower priced securities and that brokerage firms may be reluctant to recommend lower priced stock to their clients, which may be due in part to a perception that lower-priced securities are less promising as investments, are less liquid in the event that an investor wishes to sell his, her or its shares, or are less likely to be followed by institutional securities research firms. We believe that the reduction in the number of issued and outstanding shares of our common stock caused by the Reverse Stock Split, together with the anticipated increased stock price immediately following and resulting from the Reverse Stock Split, may encourage further interest and trading in our common stock and thus possibly promote greater liquidity for our stockholders, thereby resulting in a broader market for our common stock than that which currently exists.

Certain Risks Associated with the Reverse Stock Split

While we believe the proposed Reverse Stock Split is critically important to the company and its stockholders, the First Amendment does carry with it several significant risks.

We cannot assure you, for example, that the market price per share of our common stock after the Reverse Stock Split will rise or remain constant in proportion to the reduction in the number of shares of common stock outstanding before the Reverse Stock Split. For example, using the closing price of our common stock on April 1, 2016 of \$0.26 per share as an example, if our Board of Directors were to implement the Reverse Stock Split at a one for twelve ratio, we cannot assure you that the post-split market price of our common stock would be or would remain at a price of twelve times greater than \$0.26, or \$3.12 (\$0.26 x 12). In some cases, the market price of a company's shares declines after a reverse stock split. Thus, while our stock price might meet the continued listing requirements for the NASDAQ Capital Market initially, we cannot assure you that it would continue to do so. The company completed a one for ten reverse stock split in July 2011, for example, and saw its per share price trade back below \$1.00 within seven months.

The market price of our common stock will also be based on our performance and other factors, most of which are unrelated to the number of shares outstanding. If the Reverse Stock Split is effected and the market price of our common stock declines, the percentage decline as an absolute number and as a percentage of our overall market capitalization may be greater than would occur in the absence of a Reverse Stock Split. Furthermore, the liquidity of our common stock could be adversely affected by the reduced number of shares that would be outstanding after the Reverse Stock Split.

We also cannot assure you that the Reverse Stock Split will result in per share stock prices that will attract additional investors or increase analyst coverage. In addition, a successful Reverse Stock Split does not guarantee the company will continue to satisfy the other continued listing requirement of the NASDAQ Capital Market.

Management is unaware of any specific effort to obtain control of the company, and has no present intention of using the proposed effective increase in the number of authorized shares of common stock as an anti-takeover device. However, the company's authorized, but unissued, capital stock could be used to make an attempt to effect a change in control more difficult.

Certain Risks Associated with Not Adopting the Reverse Stock Split Charter Amendment

Failure to carry out the Reverse Stock Split also carries several significant risks.

Lack of Authorized Capital; Potential Insolvency. As of April 1, 2016, the company had 15,785,585 shares of unissued and unreserved shares of authorized common stock. Because we currently use equity financings to fund substantially all our operations, we believe that this number of authorized shares remaining would be insufficient to continue operating our business as currently conducted or complete our ongoing Phase II Pathway Study in spinal cord injury. Failure to conduct the Reverse Stock Split therefore carries with it a high likelihood that the company will become insolvent.

Delisting. If our stockholders do not approve the Reserve Stock Split, the company could be delisted from the NASDAQ Capital Market, thereby potentially decreasing the liquidity of our stock and hurting or stock's market price and discouraging future investments in our company.

Effects on Past and Future Financings. Failure to approve this Proposal Number 3 could also have adverse consequences on both past and future equity financings by the company. For example, the company completed in mid-March 2016 an equity financing of approximately \$8 million gross proceeds in which the company issued Series B warrants to purchase up to 22,996,747 shares of company common stock at a price per share of \$0.42. These Series B warrants cannot be exercised unless the company's stockholders approve an increase of the authorized share capital of the company.

Because the Reverse Stock Split would not change the company's authorized capital, by approving this Proposal Number 3, our Board would be able to increase the number of common shares available for issuance by completing the Reverse Stock Split. Consequently, the company could receive additional proceeds through the exercise of the outstanding Series B warrants, on or before their expiry in March 2022, of approximately \$9.7 million. In addition, as part of this March 2016 financing, the company agreed to solicit stockholder approval to increase the company's authorized shares of common stock at least every four months until the company obtains stockholder approval, so failure to obtain approval for this Proposal Number 3 at the Annual Meeting would require the company to conduct a special stockholder meeting in 2016 and incur those unanticipated costs. In addition, Proposal Number 5 (described below) describes a potential equity line financing by the company of up to \$16 million. By approving this Proposal Number 3, the company will have sufficient shares to complete the equity line financing if the company's Board of Directors authorizes it.

Procedure for Effecting Reverse Stock Split and Exchange of Stock Certificates

Text of the First Amendment to our certificate of incorporation. If the stockholders approve this Proposal Number 3 to authorize our Board of Directors to implement the First Amendment, we will amend Section THREE of our restated certificate of incorporation to add substantially the following paragraph at the end thereof:

"Effective at 5:00 p.m. Pacific Time the date of filing of the Certificate of Amendment with the State of Delaware (the "Reverse Split Effective Time"), every [ten] ... [fifteen] shares of Common Stock issued and outstanding prior to the Reverse Split Effective Time, without further action, will be combined into and automatically become one share of issued and outstanding Common Stock of the Corporation. The Corporation will not issue fractional shares on account of the foregoing Reverse Stock Split; all shares that are held by a stockholder as of the Reverse Split Effective Time shall be aggregated and each fractional share resulting from the Reverse Stock Split after giving effect to such aggregation shall be rounded up to the nearest whole number."

To carry out the First Amendment, we would file with the Secretary of State for the State of Delaware a certificate of amendment in substantially the form attached as Schedule 1. Stockholders are encouraged to review this carefully as it would modify the capitalization of the company upon filing.

If this Proposal Number 3 is approved by our stockholders and if our Board of Directors concludes that the First Amendment is in the best interests of the company and its stockholders on a date within three months after stockholder approval is obtained, our Board of Directors would cause the Reverse Stock Split to be implemented at the whole number ratio between one for ten and one for fifteen, as selected by our Board of Directors in its sole discretion. We would file the certificate of amendment with the Delaware Secretary of State at such time as our Board of Directors has determined the appropriate effective time for the First Amendment, including the Reverse Stock Split. Our Board of Directors may delay effecting the First Amendment without resoliciting stockholder approval to any time within three months after the date stockholder approval is obtained (if at all). The First Amendment would become effective on the date the certificate of amendment is filed with the Delaware Secretary of State (the "Reverse Split Effective Date"). Beginning on the Reverse Split Effective Date, each certificate representing Old Shares would be deemed for all corporate purposes to evidence ownership of New Shares.

As soon as practicable after the Reverse Split Effective Date, stockholders would be notified that the Reverse Stock Split has been effected. We will retain an exchange agent (the "Exchange Agent") for purposes of implementing the exchange of stock certificates. Holders of Old Shares would be asked to surrender to the Exchange Agent certificates representing Old Shares in exchange for certificates representing New Shares in accordance with the procedures to be set forth in a letter of transmittal to be sent by us. No new certificates would be issued to a stockholder until such stockholder has surrendered such stockholder's outstanding certificate(s) together with the properly completed and executed letter of transmittal to the Exchange Agent. Any Old Shares submitted for transfer, whether pursuant to a sale or other disposition, or otherwise, would automatically be exchanged for New Shares. STOCKHOLDERS SHOULD NOT DESTROY ANY STOCK CERTIFICATES AND SHOULD NOT SUBMIT ANY CERTIFICATES UNTIL REQUESTED TO DO SO.

Fractional Shares

No fractional shares would be issued in connection with the Reverse Stock Split. Stockholders of record who otherwise would be entitled to receive fractional shares, would be entitled to rounding up of their fractional share to the nearest whole share.

Effect on Options, Warrants and Other Securities

All outstanding options, warrants and other securities entitling their holders to purchase shares of our common stock would be adjusted as a result of the Reverse Stock Split, as required by the terms of each security. In particular, the conversion ratio for each security would be reduced proportionately, and the exercise price, if applicable, would be increased proportionately, in accordance with the terms of each security and based on the exchange ratio implemented in the Reverse Stock Split.

Accounting Matters

The First Amendment would not affect the common stock capital account on our balance sheet. As of the Reverse Split Effective Date, the stated capital on our balance sheet attributable to our common stock would be reduced proportionately based on the selected exchange ratio, and the additional paid-in capital account would be credited with the amount by which the stated capital is reduced. In future financial statements, we would restate net income or loss per share and other per share amounts for periods ending before the Reverse Stock Split to give retroactive effect to the Reverse Stock Split. The per share net income or loss and net book value of our common stock would be increased because there would be fewer shares of our common stock outstanding.

Discretionary Authority of the Board of Directors to Abandon Reverse Stock Split

The Board of Directors reserves the right to abandon the First Amendment without further action by our stockholders at any time before the effectiveness of the filing with the Delaware Secretary of State of the certificate of amendment to the company's certificate of incorporation, even if the Reverse Stock Split has been authorized by our stockholders at the Annual Meeting. By voting in favor of the Reverse Stock Split, you are expressly also authorizing our Board of Directors to determine not to proceed with, and abandon, the Reverse Stock Split, if it should so decide.

No Dissenter's Rights

Neither Delaware law, the company's restated certificate of incorporation, nor the company's amended and restated by-laws provides for appraisal or other similar rights for dissenting stockholders in connection with this proposal. Accordingly, the company's stockholders will have no right to dissent and obtain payment for their shares, and we will not independently provide stockholders with any such right.

Directors' Recommendation

The affirmative vote of a majority of all outstanding shares of common stock is required to approve the Reverse Stock Split at the Annual Meeting. If you abstain from voting on this Proposal Number 3 to approve the Reverse Stock Split, it will have the same effect as a vote "AGAINST" the proposal. Your vote is therefore extremely important.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE <u>FOR</u> THE PROPOSAL TO AMEND THE COMPANY'S CERTIFICATE OF INCORPORATION TO EFFECT THE REVERSE STOCK SPLIT OF THE COMPANY'S ISSUED AND OUTSTANDING COMMON STOCK AS DESCRIBED IN THIS PROPOSAL NUMBER 3.

<u>Please Note:</u> This proxy statement contains forward looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Securities Exchange Act that involve substantial risks and uncertainties. Such statements include, without limitation, all statements as to expectation or belief and statements as to the future trading price and liquidity of our common stock, whether traded on the NASDAQ Capital Market or otherwise; our future results of operations; our ability to satisfy all the listing requirements of NASDAQ; the prospect for analyst coverage; and the need for, and timing of, additional capital and capital expenditures. Our actual results may vary materially from those contained in such forward-looking statements because of risks to which we are subject, including the fact that uncertainties in our ability to obtain the capital resources needed to continue our current research and development operations and to conduct the research, preclinical development and clinical trials necessary for regulatory

approvals; the uncertainty regarding our ability to obtain a corporate partner or partners, if needed, to support the development and commercialization of our potential cell-based therapeutics products; the uncertainty regarding the outcome of our clinical trials or studies we may conduct in the future; the uncertainty regarding the validity and enforceability of our issued patents; the uncertainty regarding whether any products that may be generated in our cell-based therapeutics programs will prove clinically safe and effective; the uncertainty regarding whether we will achieve significant revenue from product sales or become profitable; competition from third parties; intellectual property rights of third parties; litigation risks; and other risks to which we are subject. All forward-looking statements attributable to us or to persons acting on our behalf are expressly qualified in their entirety by the cautionary statements and risk factors set forth in "Risk Factors" in Part I, Item 1A of our Form 10-K for the fiscal year ended December 31, 2015.

PROPOSAL NUMBER 4

Approval of Amendment to the Company's Certificate of Incorporation to Decrease Authorized Capital

General

Our Board of Directors has unanimously adopted a resolution declaring advisable and recommending to the stockholders for their approval a proposal to amend the company's restated certificate of incorporation, as amended to date, to decrease the number of authorized shares of common stock from 225,000,000 to 200,000,000. Approval of this Proposal Number 4 would grant our Board the authority, without further action by the stockholders, to decrease the authorized capital of the company, by decreasing the number of authorized shares of common stock from 225 million to 200 million, at any time within three months after the date stockholder approval for this proposal to decrease the company's authorized capital is obtained. As explained below, our Board's decision whether or not (and when) to decrease the authorized capital of the company would be based on a number of factors, including whether the Company effects the Reverse Stock Split described in Proposal Number 3.

A sample form of the certificate of amendment relating to this Proposal Number 4, which we would file with the Secretary of State of the State of Delaware to carry out the amendment to our certificate of incorporation, is attached to this proxy statement as Schedule 2 (the "Second Amendment").

Rationale for a Reduction in the Number of Shares of Authorized Common Stock

We do not intend to file the Second Amendment unless our stockholders approve Proposal Number 3 and we effect the Reverse Stock Split, as described in Proposal Number 3. Indeed, we believe Delaware law precludes us from filing the Second Amendment, which would reduce the number of authorized shares of common stock to 200 million, unless we first complete the Reverse Stock Split, because the company already has more than 200 million shares of common stock issued and outstanding on a fully diluted basis. We therefore expect that a reduction in authorized capital at this time would be contingent upon the successful completion of a Reverse Stock Split, as described above in Proposal Number 3. If the stockholders approve Proposal Number 3 and if the Board chooses to complete a Reverse Stock Split, we may elect to file the Second Amendment to decrease our authorized common stock to 200 million, if our Board believes that we have sufficient authorized and available shares of common stock, given our trading price after the Reverse Stock Split, to fund our foreseeable operations.

Our Board will only file the Second Amendment to decrease the company's authorized capital if it believes the 200 million shares of authorized common stock, after the Reverse Stock Split and given the per share price of the outstanding common stock, is sufficient for the company's financing and product development needs.

Effects of a Reverse Stock Split

We described, under Proposal Number 3, the anticipated impact on our authorized share capital as a result of the proposed Reverse Stock Split. Because the Reverse Stock Split would not change the company's authorized shares, a Reverse Stock Split would increase the number of shares of common stock available to us for future use, as shown in the following table, which summarizes the possible effect of the Reverse Stock Split based upon the company's issued and outstanding equity, as of April 1, 2016:

Split Ratio for Issued and Outstanding Shares	Common Stock Outstanding after the Reverse Stock Split (1)	Warrant and Option Shares Reserved after the Reverse Stock Split (1)	Available Common Stock after the Reverse Stock Split, if 225 million shares authorized(2)	Available Common Stock after the Reverse Stock Split, if 200 million shares authorized(2)
1 for 10	13,922,256	9,298,862	201,778,882	176,778,882
1 for 11	12,656,596	8,453,511	203,889,893	178,889,893
1 for 12	11,601,880	7,749,051	205,649,069	180,649,069
1 for 13	10,709,427	7,152,971	207,137,602	182,137,602
1 for 14	9,944,468	6,642,044	208,413,488	183,413,488
1 for 15	9.281.504	6.199.241	209.519.255	184.519.255

(1) As of April 1, 2016, the company had the following issued and outstanding equity: (i) 139,222,551 shares of common stock; (ii) equity awards (options and RSUs) to acquire up to 10,382,850 shares of common stock, and (iii) warrants to acquire up to 82,605,761 shares of common stock, although approximately 23 million of these warrant shares are tied to the company's outstanding Series B warrants, which were issued in the company's March 2016 financing and are only issuable if and when the company is able to increase its authorized share capital by at least 23 million shares of common stock.

(2) The actual number of shares of common stock available after the Reverse Stock Split may be higher or lower depending on the number of fractional shares that are rounded up in the Reverse Stock Split and as the result of rounding calculations for outstanding equity awards.

If our per share trading price remains stable following the Reverse Stock Split and adjusts proportionally, then we could expect to have a sufficient number of shares of common stock to raise over \$600 million (approximately 200 million available shares multiplied by a per share price of approximately \$3.00). However, the market price of our common stock will be based on many factors, including our clinical trial results, business performance and market factors, almost all of which are completely unrelated to the number of shares outstanding. If the Reverse Stock Split is effected and the market price of our common stock declines, the percentage decline as an absolute number and as a percentage of our overall market capitalization may be greater than would occur in the absence of a Reverse Stock Split. Furthermore, the liquidity of our common stock could be adversely affected by the reduced number of shares that would be outstanding after the Reverse Stock Split.

Principal Effects of the Second Amendment

Text of the Second Amendment to our certificate of incorporation. If the stockholders approve this Proposal Number 4 to authorize our Board of Directors to implement the Second Amendment and our Board of Directors decides to implement the Second Amendment, we will amend the first sentence of Section THREE of our restated certificate of incorporation to read as follows:

"The total number of shares of capital stock which the Corporation shall have the authority to issue shall be 201,000,000 shares, consisting of (i) 200,000,000 shares of Common Stock and (ii) 1,000,000 shares of Undesignated Preferred Stock."

To carry out the Second Amendment, we would file with the Secretary of State for the State of Delaware a certificate of amendment in substantially the form attached as Schedule 2. Stockholders are encouraged to review this carefully as it would modify the capitalization of the company upon filing.

Effect on Options, Warrants and Other Securities

The Second Amendment would have no effect on our outstanding common stock, options, warrants, and other equity securities.

Accounting Matters

The Second Amendment would not affect the common stock capital account on our balance sheet.

Discretionary Authority of the Board of Directors to Abandon Decrease of Authorized Capital

The Board of Directors reserves the right to abandon the Second Amendment without further action by our stockholders at any time before the effectiveness of the filing with the Delaware Secretary of State of the certificate of amendment to the company's certificate of incorporation decreasing the authorized capital, even if the reduction in authorized capital has been authorized by our stockholders at the Annual Meeting. By voting in favor of reducing the number of authorized shares of common stock to 200 million, you are expressly also authorizing our Board of Directors to determine not to proceed with, and abandon, this reduction in the authorized capital, if it should so decide, and irrespective of our per share trading price.

No Dissenter's Rights

Neither Delaware law, the company's restated certificate of incorporation, nor the company's amended and restated by-laws provides for appraisal or other similar rights for dissenting stockholders in connection with this proposal. Accordingly, the company's stockholders will have no right to dissent and obtain payment for their shares, and we will not independently provide stockholders with any such right.

Directors' Recommendation

The affirmative vote of a majority of all outstanding shares of common stock is required to approve the proposed decrease in the number of authorized shares of common stock to 200 million at the Annual Meeting. If you abstain from voting on this Proposal Number 4 to approve the proposal to reduce the company's authorized capital, it will have the same effect as a vote "AGAINST" the proposal. Your vote is therefore extremely important.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE \underline{FOR} THE PROPOSAL TO AMEND THE COMPANY'S CERTIFICATE OF INCORPORATION TO DECREASE THE NUMBER OF AUTHORIZED SHARES OF COMMON STOCK TO 200 MILLION AS DESCRIBED IN THIS PROPOSAL NUMBER 4.