

PROSPECTUS SUPPLEMENT NO. 4

DATED August 14, 2014 (To Prospectus Dated August 7, 2014)

AMEDICA CORPORATION

2,326,409 Shares of Common Stock

This Prospectus Supplement No. 4, dated August 14, 2014 (“Supplement No. 4”), filed by Amedica Corporation (the “Company”), modifies and supplements certain information contained in the Company’s prospectus, dated August 7, 2014 (as amended and supplemented from time to time, the “Prospectus”). This Supplement No. 4 is not complete without, and may not be delivered or used except in connection with, the Prospectus, including all amendments and supplements thereto. The Prospectus relates to the sale of up to 2,326,409 shares of our common stock by MG Partners II Ltd., or the Selling Stockholder, consisting of:

- 1,706,667 shares issued or issuable upon conversion of an aggregate principal amount of \$6.4 million of our senior convertible notes, including accrued interest, subject to adjustment;
- 50,853 shares issued to the Selling Stockholder in connection with a securities purchase agreement dated June 30, 2014; and
- 568,889 shares issued or issuable to the Selling Stockholder upon exercise of warrants at an exercise price of \$4.65 per share, subject to adjustment pursuant to the terms of the warrant.

This Supplement No. 4 incorporates into our prospectus the information contained in our attached current report on Form 8-K, which was filed with the Securities and Exchange Commission on August 14, 2014.

We may further amend or supplement the Prospectus from time to time by filing additional amendments or supplements as required. This prospectus supplement is qualified by reference to the Prospectus except to the extent that the information in this prospectus supplement supersedes the information contained in the Prospectus. You should read the entire Prospectus and any amendments or supplements carefully before you make an investment decision.

THESE SECURITIES ARE SPECULATIVE AND INVOLVE A HIGH DEGREE OF RISK AND SHOULD BE CONSIDERED ONLY BY PERSONS WHO CAN AFFORD THE LOSS OF THEIR ENTIRE INVESTMENT. PLEASE REFER TO “RISK FACTORS” BEGINNING ON PAGE 8 OF THE ORIGINAL PROSPECTUS.

THE SECURITIES AND EXCHANGE COMMISSION AND STATE SECURITIES REGULATORS HAVE NOT APPROVED OR DISAPPROVED THESE SECURITIES OR DETERMINED IF THE PROSPECTUS, OR ANY OF THE SUPPLEMENTS OR AMENDMENTS RELATING THERETO, IS TRUTHFUL OR COMPLETE. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this Supplement No. 4 is August 14, 2014

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

FORM 8-K

**CURRENT REPORT
Pursuant to Section 13 or 15(d)
of the Securities Exchange Act of 1934**

Date of report (Date of earliest event reported): August 8, 2014

Amedica Corporation

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation)

001-33624
(Commission
File Number)

84-1375299
(IRS Employer
Identification No.)

1885 West 2100 South
Salt Lake City, UT
(Address of principal executive offices)

84119
(Zip Code)

Registrant's telephone number, including area code: (801) 839-3500

(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
 - Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
 - Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
 - Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
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Item 5.02. Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers.

(e) *Executive Retention Program and Agreement*

On August 8, 2014, Amedica Corporation, a Delaware corporation (the “Company”) entered into an Executive Retention Program and Agreement (the “Retention Agreement”) with certain of its named executive officers. Pursuant to the terms of the Retention Agreement any restricted stock units previously granted to a named executive officer shall become fully vested upon the earlier to occur of: (i) the Company’s termination of such named executive officer’s employment without cause (and other than due to his death or disability), (ii) the named executive officer’s resignation from his employment with the Company for any reason, (iii) the consummation of a change in control of the Company, and (iv) the expiration of the Lock-Up Agreement previously entered into by such named executive officer and JMP Securities LLC in connection with the Company’s initial public offering and amended on August 8, 2014 (the “Amended Lock-Up Agreement”). Pursuant to the terms of the Amended Lock-Up Agreement, each named executive officer agreed to extend the sale and other restrictions set forth in the Lock-Up Agreement until the earlier of: (i) November 15, 2014 or (ii) the issuance of the Company’s Quarterly Report on Form 10-Q for the quarter ended September 30, 2014. If not previously vested pursuant to the terms of the Retention Agreement, the shares of the Company’s common stock to be issued to a named executive officer upon the vesting of restricted stock units will occur upon the date of the expiration of the Amended Lock-Up Agreement, provided that in the event the window is closed for trading in securities of the Company on such date, then the shares of the Company’s common stock shall not be issued until such date as the trading window is open but in no event later than March 15, 2015.

The Retention Agreement also provides for two retention payments to be made to each named executive officer as well as the grant of a stock option on August 13, 2014 under the Company’s Amended and Restated 2012 Equity Incentive Plan. The first retention payment is in an amount equal to 15% of his base salary and provides that should the named executive officer terminate his employment with the Company voluntarily prior to December 31, 2014, other than for certain specific reasons, the named executive officer must repay to the Company the net amount of such retention payment. The second retention payment in an amount equal to 20% of the named executive officer’s base salary is payable on June 30, 2015 provided that the named executive officer continues to be employed by the Company on that date and has not given notice of his resignation prior to such date. To that effect, Eric K. Olson, the Company’s President and Chief Executive Officer received an initial retention payment in the amount of \$52,500 and a stock option award for 150,000 shares of common stock. Bryan McEntire, the Company’s Chief Technology Officer, received an initial retention payment in the amount of \$35,250 and a stock option award for 100,000 shares of common stock.

The foregoing description of the Retention Agreement is qualified in its entirety by reference to the Retention Agreement, a copy of the form of which is attached hereto as Exhibit 10.1 and is hereby incorporated by reference herein.

Item 8.01. Other Events.

On August 8, 2014, each named executive officer of the Company entered into an amendment to the Lock-Up Agreement that each such named executive officer previously entered into with JMP Securities LLC in connection with the Company’s initial public offering. The amendment extends the sale and other restrictions set forth in the Lock-Up Agreement until the earlier of: (i) November 15, 2014 or (ii) the filing of the Company’s Quarterly Report on Form 10-Q for the quarter ended September 30, 2014.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

10.1 Form of Executive Retention Program and Agreement.

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

AMEDICA CORPORATION

Date: August 14, 2014

/s/ Kevin Ontiveros

Kevin Ontiveros
Chief Legal Officer

AMEDICA CORPORATION

EXECUTIVE RETENTION PROGRAM AND AGREEMENT

This Executive Retention Program and Agreement (the "Agreement") is entered into as of the 8th day of August, 2014 (the "Effective Date") by and between Amedica Corporation, a Delaware corporation (the "Company") and (the "Executive").

WHEREAS, the Executive and Company are parties to a Severance and Change in Control Agreement dated December 17, 2013 (the "CIC Agreement");

WHEREAS, the Company recognizes that the Executive's service to the Company is very important to the future success of the Company;

WHEREAS, the Company seeks to continue to retain the Executive as , and provide an incentive and certain financial protections to the Executive; and

WHEREAS the Board of Directors of the Company (the "Board") has determined that it is in the best interests of the Company to enter into this Agreement.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Company and the Executive agree as follows:

1. Retention Award and Equity Vesting.
 - a. Retention Award. Upon execution of this Agreement, Executive will be entitled to the cash and equity retention awards set forth below.
 - b. Outstanding RSU Award. Notwithstanding the terms set forth in the Amended and Restated RSU Agreement entered into between the Company and the Executive (the "RSU Agreement") to the contrary, and provided Executive has executed an amendment to the lock-up agreement (the "Lock-Up Agreement") entered into between Executive and JMP Securities LLC in connection with the Company's initial public offering pursuant to which the Executive agrees to extend the sale and other restrictions set forth in the Lock-Up Agreement until the earlier of November 15, 2014 or the filing of the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2014, Executive's RSUs (as such term is defined in the RSU Agreement) shall become one hundred percent (100%) vested effective upon the Company's termination of Executive's employment without Cause (as defined in the CIC Agreement) or the Executive's resignation for any reason provided that the shares of Company common stock to be received by the Executive pursuant to the RSU Agreement will be issued upon the date of the expiration of the Lock-Up Agreement, as amended, provided that in the event the window is closed for trading in securities of the Company on such date, then the securities shall not be issued until such date as the trading window is open but in no event later than March 15, 2015.

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- c. Vesting of Equity-Based Awards. Effective as of the consummation of a Change in Control or termination of Executive's employment relationship by the Company without Cause (and other than due to his death or Disability), all outstanding options, restricted stock unit awards, and other similar rights held by the Executive shall become one hundred percent (100%) vested.
2. Company Bonus Plan. Executive shall be eligible to receive a cash bonus for 2014 performance with the target amount of such bonus equal to percent (%) of Executive's annual base salary in effect as of the Effective Date, provided that the actual amount of the bonus may be greater or less than such target amount. The amount of the bonus shall be determined based on the attainment of objectives aligned with the key strategic initiatives to be set by management and the Compensation Committee. These objectives will be agreed to and approved by 8/22/14. The determination of whether a bonus shall be paid shall be made by the Board or the Compensation Committee in its sole discretion, and shall be paid to Executive no later than March 15, 2015. Executive must be employed by Company on the date on which the bonus is paid in order to be eligible for, and to be deemed as having earned, such bonus.
3. Retention Payments. Executive shall be entitled to the following Retention Payments:
- a. The Company shall pay to the Executive an amount equal to 15% of Executive's base salary as in effect on the Effective Date payable in the pay period immediately following the Effective Date (the "Initial Retention Payment"); provided, however, should Executive terminate his employment with the Company voluntarily prior to December 31, 2014, other than by death or Disability or For Good Reason, the Executive shall repay to the Company the net amount of the Initial Retention Payment no later than the tenth business day following the effective date of Executive's termination.
- b. If Executive continues to be employed by the Company on June 30, 2015 and has not given notice of his resignation prior to such date, the Company will pay to the Executive an amount equal to 20% of Executive's base salary as in effect on such date in the pay period immediately following such date.
4. On the later of the Effective Date and August 13, 2014, the Company shall grant Executive a stock option for shares of common stock of the Company with following terms:
- Option shall vest over a three year period as to 16.67% of the shares on every 6 month anniversary of the grant date as long Executive is employed by the Company on each vesting date and vesting shall be accelerated as per the terms of this Agreement.
 - Option shall be granted pursuant to the Company's Amended and Restated 2012 Equity Incentive Plan (the "Plan") and form of stock option agreement previously approved by the Board.
 - Option shall have an exercise price equal to the Fair Market Value (as defined in the Plan) of a share of common stock as of the grant date.

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- Option shall be to the maximum extent possible, an “incentive stock option” within the meaning of Section 422 of the Code.

The stock option award is made in connection with the Company’s annual comprehensive stock option award program to Company employees, executives and members of the Board of Directors.

5. Governing Law. This Agreement and the rights and obligations of the parties hereunder shall be construed in accordance with and governed by the law of the State of Utah, without giving effect to the conflict of law principles thereof.
6. Withholding. The Company is authorized to withhold, or cause to be withheld, from any payment or benefit under the Agreement the full amount of any applicable withholding taxes.
7. Tax Consequences. The Company does not guarantee the tax treatment or tax consequences associated with any payment or benefit arising under this Agreement.
8. Acknowledgment. The Executive acknowledges that he has had the opportunity to discuss this matter with and obtain advice from his private attorney, has had sufficient time to, and has carefully read and fully understands all the provisions of the Agreement, and is knowingly and voluntarily entering into the Agreement.
9. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the day and year first above written.

COMPANY:

AMEDICA CORPORATION

By: _____

Name: Eric Olson

Title: Chief Executive Officer

EXECUTIVE:

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