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

DIVISION OF
CORPORATION FINANCE

October 21, 2013

Via E-mail
Eric K. Olson
Chief Executive Officer
Amedica Corporation
1885 West 2011 South
Salt Lake City, UT 84119

Re: Amedica Corporation
Draft Registration Statement on Form S-1
Filed September 24, 2013
CIK No. 0001269026

Dear Mr. Olson:

We have reviewed your draft registration statement and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by providing the requested information and either submitting an amended draft registration statement or publicly filing your registration statement on EDGAR. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing the information you provide in response to these comments and your amended draft registration statement or filed registration statement, we may have additional comments.

General

1. Please supplementally provide us with copies of all written communications, as defined in Rule 405 under the Securities Act, that you, or anyone authorized to do so on your behalf, present to potential investors in reliance on Section 5(d) of the Securities Act, whether or not they retain copies of the communications. Similarly, please supplementally provide us with any research reports about you that are published or distributed in reliance upon Section 2(a)(3) of the Securities Act of 1933 added by Section 105(a) of the Jumpstart Our Business Startups Act by any broker or dealer that is participating or will participate in your offering.

Graphics

2. Please remove images of products which are merely in development and/or for which you have not made any commercial sales.

Summary, page 1

3. Please explain what you mean when you say in the first paragraph that over 11,500 of your spine products have been "successfully" implanted.

4. We note your disclosure that the rate of adverse events reported to the FDA for your Valeo interbody spinal fusion devices is "significantly lower" than for PEEK devices. Please provide copies of the sources you used to calculate your rate of adverse events reported to FDA, as well as the rate for PEEK.

5. If you choose to retain selective financial statement disclosure of your revenues in the summary, please also provide the related net loss for the relevant periods.

6. Because your non-Silicon Nitride products appear to represent a significantly larger portion of your product revenues, please revise your summary to explain your other products in more detail and explain why you have highlighted your Silicon Nitride products so significantly.

Market Opportunity, page 2

7. Please provide objective third party support for each place where you discuss the characteristics or statistical data regarding your industry and provide us with copies of the industry reports and research studies cited throughout your prospectus, clearly marked to support references made therein. For each report and study cited, tell us: (1) whether the study was financed or prepared by you or at your direction; (2) whether your officers or directors have any relationship with the researching institution; (3) whether the study is publically available; and (4) whether the you received consent to use the study as required by Rule 436 of the Securities Act of 1933. We may have additional comments upon reviewing these materials.

Our Silicon Nitride Technology Platform, page 2

8. You appear to indicate that you believe your product is superior because it has the listed characteristics; however, it is unclear whether competing products also have some or all of these characteristics. Please revise or advise.

Our Strategy, page 3

Develop Silicon Nitride for Total Joint Components, page 4

9. Refer to the third bullet point on page 4. Explain what you mean by "confirm our regulatory strategy in the United States with the FDA."

Risk Factors, page 10

Risks Related to Our Capital Resources, page 17

10. Please quantify expected future capital funding needs for your planned near term activities, including research, development and regulatory approval activities necessary to bring each of your discussed product candidates to market.

Capitalization, page 39

11. Tell us, with a view toward disclosure in your capitalization discussion, whether there are any contingencies associated with the assumed conversion of the preferred stock upon consummation of the offering. For instance, tell us whether there are contingencies related to the size of the offering, the offering price or the valuation assigned to the company.

Management's Discussion and Analysis of Financial Condition and Results of Operating, page 45

Product Revenue, page 46

12. We note your disclosure that you believe that sales of your products will increase based upon your marketing efforts. Please discuss the basis for this statement, taking into account that: (1) your silicon nitride based products have had FDA approval since 2008, and your other products may have had a longer approval time; and (2) in light of your existing indebtedness, you appear to be unable to increase your current spending on marketing.

Critical Accounting Policies and Estimates, page 55

Long-lived Assets and Goodwill, page 56

13. While we note that you recognized a significant impairment charge for intangible assets during 2012, the remaining carrying amount of those assets continues to be significant to your total assets. Accordingly, please provide critical accounting policy disclosure that more fully describes the risk of future impairment. For instance, describe the margin you believe exists before you would be required to potentially measure and recognize an additional impairment loss, describe how you arrive at estimates of future cash flows and describe the key assumptions on which your determination of recoverability is based. Clarify the extent of subjectivity and potential variability of the impairment evaluation in your particular circumstances.

14. In light of the significant impairment recognized for intangible assets in the year ended December 31, 2012, please describe to us the analysis you performed and the factors you relied upon in concluding that there was no goodwill impairment as of December 31, 2012. Your response should fully describe how you applied the guidance from FASB ASC 350-20. In that you report negative equity and disclose that you have a single reporting unit, please be specific in describing how you considered the guidance applicable to reporting units with negative carrying amounts.

15. We see your continued losses and a decrease in revenues in the first six months of 2013. Please tell us whether you performed an interim goodwill impairment analysis as of June 30, 2013. If not, please describe to us the factors you considered in concluding that an interim analysis was unnecessary.

16. With respect to goodwill, please expand for the following matters to enhance your disclosures regarding the potential for goodwill impairment. In that regard, please consider the following in expanded MD&A:
    - Please fully describe the factors you considered in concluding that as of your most recent evaluation that it was more likely than not that there was no goodwill impairment. That is, describe the factors you considered in concluding that the carrying amount of goodwill did not exceed its implied fair value.
    - Describe the key methods and assumptions used and describe how the key assumptions were determined.
    - Describe the degree of uncertainty associated with the key assumptions, including reasonable specificity to the extent you have assumed improvements in your operating results.
    - Describe potential events and circumstances that could reasonably be expected to affect the key assumptions.

Stock-Based Compensation Expense, page 57

17. Please tell us whether you have had any preliminary pricing discussions with your underwriters. If so, please tell us about the substance of those discussions and tell us whether those discussions were considered in determining the estimated fair value of your common stock.

18. With respect to the 2.4 million restricted stock units granted in February 2013, please disclose the expected amount of the charge to earnings, assuming vesting conditions are satisfied.

19. Once an offering pricing range is available, please disclose the aggregate intrinsic value of all outstanding options based on the midpoint of the range.

20. While we note that you have not granted employee stock options in recent periods, there are other measurements in your financial statements that are in-part dependent on the estimated fair value of your common stock. According, please expand to provide a specific discussion of each key factor contributing to any significant difference between the estimated fair value of your common stock and the estimated offering price (or pricing range) for the 12 months prior to the contemplated offering. Note that we are deferring final evaluation of share-based compensation and other common equity-linked valuations until the estimated offering price is specified and we may have further comments in that regard when you file an amendment containing that information.

Market Opportunity, page 65

21. Please tell us whether your interbody spinal fusion products would have been suitable for use in all 400,000 of the procedures discussed here. If not, please revise to explain how this number is relevant to your business.

Limitations on Biomaterials used in Interbody Spinal Fusion Materials, page 66

22. Please explain to us the basis for your beliefs regarding other biomaterials listed in this section.

Our Strategy, Page 72

Continue to Implement our Design and Build Program, page 72

23. Please explain the evaluation criteria used by surgeons participating in the program.

Apply our Silicon Nitride Technology Platform to Other Uses, page 72

24. In regards to your discussion of silicon nitride technology's adaptability to hip and knee implants, dental implants, and sports medicine and trauma products, please disclose whether each of these products has been evaluated by the FDA or in the field, and the expected timeline for each product's introduction into the marketplace.

Executive and Director Compensation, page 94

25. Please reconcile information contained in the Summary Compensation table on page 94 with the narrative information on approved salaries located in the first paragraph on page 95.

Annual Cash Bonuses, page 95

26. We note that you seek to reward your executives' achievement of key strategic and business outcomes with cash bonuses. In this regard, it appears that the bonuses may not be purely discretionary. Please disclose your executives' 2012 strategic and business outcome bonus goals, or advise.

Financial Statements, page F-1

27. Please update the financial statements when required by Rule 8-08 of Regulation S-X.

Consolidated Statements of Cash Flows, page F-6

28. Please tell us how you determined that your disclosure about non-cash financing and investing activities is complete. As appropriate, please expand the disclosure at the bottom of the cash flow statement or add disclosure that clearly references the required information from the notes to financial statements. Refer to FASB ASC 230-10-50.

Note 1. Organization and Summary of Significant Accounting Policies, page F-7

Revenue Recognition, page F-9

29. Please expand to clarify how you apply each of the four general revenue recognition criteria enumerated in the second sentence of your revenue policy in determining the timing and amounts revenue. Please also clarify how you actually apply each of the matters referred to in the third sentence of your disclosure and clarify how those matters relate to the four general criteria cited in the second sentence. It appears that similar considerations apply to the revenue policy disclosures on pages 46 and 55 of MD&A.

30. Please clarify whether revenue polices for "spinal fusion devices" referred to in the first sentence of your revenue policy disclosure differ from those for "spinal implants"

referred to in the last sentence of the disclosure. If the fourth sentence of your disclosure is describing how you apply the delivery criteria from the second sentence of your disclosure, please revise to clarify. It appears that you may need to reorganize the revenue policy disclosure to better clarify your revenue policies, how you apply those policies and when you actually recognize revenue. It appears that similar considerations apply to the revenue policy disclosures on pages 46 and 55 of MD&A.

Long-lived Assets and Goodwill, page F-10

31. You disclose that you have a single reporting unit and we see that you report a stockholders' deficit. However, your accounting policy for goodwill impairment testing describes the method applicable to reporting units where the carrying amount is greater than zero. Accordingly, tell us how your goodwill impairment testing accounting policy disclosure considers the method and guidance applicable to reporting units with zero or negative carrying amounts. Refer to FASB ASC 350-20.

Note 7. Debt and Line of Credit, page F-17

New Bank Debt/Preferred Stock Warrant Liability, page F-19

32. Please expand to describe or to refer to description of the impact of the covenant violations on the balance sheet classification of your debt at June 30, 2013.

33. We note your disclosure on pages F-22 and F-28 of significant assumptions used in determining the estimated fair value of your common shares. Here, or in MD&A, please provide expanded narrative to more fully explain your modeling and to add context to the disclosed assumptions. For instance, please consider the following in expanded narrative:
    - Describe the two components of the hybrid model referred to in your disclosure, describe why you selected those models and clarify how you weight the results of the discounted cash flow and guideline company models.
    - Clarify the nature of the assumptions applicable to each of the two components of your modeling and describe how you arrive at those assumptions.
    - Add sufficient context to explain the assumptions. For instance, clarify why revenue growth rates range between 5.7% and 609% and why EBITDA margins range between 28.9% and (9877)%.

Exhibits

Exhibit 23.1 Consent of Ernst & Young LLP

34. Please file a consent from your independent accountants with your first public filing in EDGAR. Afterwards, to the extent there is a delay in requesting effectiveness of your registration statement, or there is any change, other than typographical, made to the financial statements, or there have been intervening events since the prior filing that are material to you, please provide a currently dated and signed consent from your independent accountants with subsequent publicly filed amendments.

If you intend to respond to these comments with an amended draft registration statement, please submit it and any associated correspondence in accordance with the guidance we provide in the Division's October 11, 2012 announcement on the SEC website at http://www.sec.gov/divisions/corpfin/cfannouncements/drsfilingprocedures101512.htm.

Please keep in mind that we may publicly post filing review correspondence in accordance with our December 1, 2011 policy (http://www.sec.gov/divisions/corpfin/cfannouncements/edgarcorrespondence.htm). If you intend to use Rule 83 (17 CFR 200.83) to request confidential treatment of information in the correspondence you submit on EDGAR, please properly mark that information in each of your confidential submissions to us so we do not repeat or refer to that information in our comment letters to you.

You may contact Praveen Kartholy, Staff Accountant, at (202) 551-3778 or Gary Todd, Accounting Reviewer, at (202) 551-3605 if you have questions regarding comments on the financial statements and related matters. Please contact Ted Moskovitz at (202) 551-3689 or me at (202) 551-3528 with any other questions.

Sincerely,

/s/ Amanda Ravitz

Amanda Ravitz
Assistant Director

cc (via e-mail): Kevin Ontiveros, Esq.