



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 3030

June 19, 2018

Via E-mail

Dean Irwin
Chief Executive Officer
Ra Medical Systems, Inc.
2070 Las Palmas Drive
Carlsbad, CA 92011

**Re: Ra Medical Systems, Inc.
Draft Registration Statement on Form S-1
Submitted May 21, 2018
CIK No. 0001716621**

Dear Mr. Irwin:

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.

Prospectus Summary, page 1

1. The basis for your statement that DABRA is “cost-effective for healthcare payors and providers” is unclear. Please revise to provide support for this claim, and specifically address the lack of reimbursement codes.
2. Where you elect to highlight the lack of serious adverse events associated with your products, also disclose, if true, that your basis for this assertion is data from your pivotal study in 2017 on 64 patients, in which you measured adverse events at the time of the procedure. Disclose that you only followed 38 patients to 180 days after the study and discuss whether you assessed them for adverse events at that time. Also, if you choose to

highlight the lack of serious adverse events, balance your disclosure with the disclosure on page 32 suggesting that other types of adverse events have occurred, or advise.

3. You claim that your laser products enhance patients' quality of life and save limbs from amputation, among other benefits. The bases for these claims appear subjective and/or speculative. Please revise to present these claims as your belief or advise if you have objective supporting evidence.
4. Make sure that you explain terminology to the degree necessary for an average reader to understand your products and business. While your disclosure eventually describes most terms specifically, your summary may benefit from elaboration of certain terms which may not be clear from the context, like fluoroscopy, revascularization and collimation.

Our Strategy, page 2

5. If you elect to highlight your "proprietary product technology," revise to disclose that the lasers upon which your products are based are not covered by patents you own.

Implications of Being an Emerging Growth Company, page 5

6. 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.

Risk Factors, page 12

7. Refer to the risk factor on page 13. Clarify whether you have any reimbursement from third-party payors and how a lack thereof will impact DABRA's marketability. Also, discuss in your business section whether you have any ongoing efforts to establish specific reimbursement codes related to DABRA treatments.

We face credit and compliance risk . . . , page 22

8. It is difficult to assess the risk presented because there does not appear to be any additional disclosure about your distribution network. Please clarify the scope of the risk by discussing relevant details about your distributors' locations or the volume of your business represented by distribution channels or other relevant information.

We could be subject to claims based on defects . . . , page 24

9. We note your disclosure on page 25 that you face potential liability to existing shareholders relating to past corporate transactions. Please clarify the scope of any material potential liability and discuss which “requirements of applicable law” are at issue. Also, provide us your analysis of whether the disclosed past transactions could materially impact your intended reincorporation in connection with this offering.

EBITDA and Adjusted EBITDA, page 75

10. Please revise the discussion of Adjusted EBITDA limitations to describe why the loss on abandonment of facilities is included as an adjustment in the non-GAAP measure.

Critical Accounting Policies and Estimates, page 79

Stock-Based Compensation expense, page 80

11. When pricing information for this offering is available, please tell us the significant reasons for any material differences between your last common stock fair value determination and the mid-point of the estimated IPO price range including all material positive and negative events occurring during the period which could reasonably contribute to variances in fair value.

Business, page 84

12. Please revise to clarify whether the various treatments address the vascular disease itself or side effects thereof. Specifically, it is not clear whether the plaque blockages are the disease or just result from the disease. In this respect, it appears that some treatments attempt to support the vein while others clear the blockage. Please revise if these differences would affect your discussion of your business and the competitive landscape.

DABRA, page 84

13. We note your disclosure in the third full sentence on page 85 that your DABRA product can be used in conjunction with other treatments. Revise to disclose how often your products are used in conjunction with other treatments and balance your disclosure concerning the competitive advantages your product offers over these competing technologies.

14. Balance your disclosure concerning the possible immunosuppressive effects of your DABRA product with your disclosure under the heading Immunotherapeutic Benefits on page 87.

Pre-Marketing Studies, page 91

15. Revise to clarify whether the data cited in the second paragraph regarding your DABRA study results was measured over the same timeframe as that used in the predicate device's study, which results you also cite.
16. Disclose whether the lesion size and method of angiograph analysis differ meaningfully from standard practice in commercial application.

Patents, page 96

17. File your material confidentiality and assignment agreements, given your disclosure here and on page 43.

Management, page 106

18. Clarify whether you had a person acting as your principal financial officer prior to April 2018.

Employment Arrangements with Our Named Executive Officers, page 114

19. We note you intend to enter into new offer letters or employment agreements with your named executive officers. File the existing agreements, and, if applicable, the new agreements, as exhibits.

Security ownership of certain beneficial owners and management, page 125

20. It does not appear that selling shareholders will participate in this offering. As such, please clarify the purpose of including two columns disclosing the number of shares each beneficial owner owns. It is unclear why that number would differ before and after the offering. Also, provide the footnote disclosure suggested by the numbers following each owner's name or advise.

Shares eligible for future sale, page 131

21. Revise to clarify what “securities convertible into or exchangeable for [y]our common stock” you currently have outstanding and where disclosure concerning these securities is located in your prospectus.

Note 2 – Significant Accounting Policies

Fair value measurements, page F-9

22. With respect to the stock-based compensation liability, please revise the filing to disclose quantitative information about the significant unobservable inputs underlying the Level 3 fair value measurement, including the estimated fair value of your common stock, as of each balance sheet date. Refer to ASC 820-10-50-2(bbb).
23. You indicate on page F-21 that the estimated fair value of your common stock as of the date of grant is determined using recent equity issuances, if available, or if there are no recent issuances available, the valuation is estimated using both the income and market approaches. Please revise the filing to clarify if your stock-based compensation liability as of each period end was estimated based on a recent common stock valuation or a combination of the income and market approaches.
24. Please revise this note to provide a reconciliation of the opening and closing balances of your Level 3 fair value measurements for each balance sheet date provided. Refer to ASC 820-10-50-2(c).

Revenue Recognition

Product Sales, page F-9

25. You discuss on page 79 that revenue from product sales is presented net of provisions for estimated charge backs, rebates, expected returns and cash discounts. Please revise this note to describe the nature and significant terms of all discounts, incentives, returns and other concessions offered to your customers. If these programs are significant, expand your critical accounting policy discussion to address the uncertainties associated with the methods, assumptions, and estimates underlying your accounting for these programs.

Multiple Element Arrangements, page F-10

26. You indicate that in cases where VSOE cannot be determined you use third-party evidence of selling price, if available, or best estimated selling price. Please revise your

disclosure to provide a discussion of the significant factors, inputs, assumptions, and methods used to determine selling price. Refer to ASC 605-25-50-2(e).

Lease Arrangements, page F-10

27. Please revise to provide the disclosures required by ASC 840-10-50-4 and 840-20-50-4 for your operating leases.

Note 3 – Restatement and Reclassifications, page F-15

28. We note your disclosures relating to the accounting error surrounding the awards to Optionees. To help us better understand your revised accounting, please address the following:
- Describe to us in detail the circumstances surrounding your issuance of awards to Optionees that were not validly authorized, including how you determined the awards were not authorized and your conclusion that the communicated awards were not outstanding options that should be accounted for pursuant to ASC 718-10.
 - Discuss for us your conclusion that your contractual obligation to the Optionees should be accounted for as a liability remeasured at each reporting date and tell us the authoritative guidance on which you based that conclusion.
 - Clarify for us whether you have now obtained valid authorization or tell us the steps you are taking to obtain valid authorization and explain how valid authorization would change your accounting.

Item 15. Recent Sales of Unregistered Securities, page II-2

29. Revise to name the persons or identify the classes of persons to whom the securities were sold.

Dean Irwin
Ra Medical Systems, Inc.
June 19, 2018
Page 7

You may contact Eric Atallah at (202) 551-3663 or Kevin Kuhar, Accounting Branch Chief, at (202) 551-3662 if you have questions regarding comments on the financial statements and related matters. Please contact Caleb French at (202) 551-6947 or me at (202) 551-3528 with any other questions.

Sincerely,

/s/ Amanda Ravitz

Amanda Ravitz
Assistant Director
Office of Electronics and Machinery

cc: Martin J. Waters, Esq.
Wilson Sonsini Goodrich & Rosati, P.C.