

SECURITIES & EXCHANGE COMMISSION EDGAR FILING

ENDRA Life Sciences Inc.

Form: DRSLTR

Date Filed: 2016-09-21

Corporate Issuer CIK: 1681682

September 21, 2016

VIA EDGAR CORRESPONDENCE

U.S. Securities and Exchange Commission
Division of Corporation Finance
100 F Street N.E.
Washington, D.C. 20549
Attn: Amanda Ravitz**Re: ENDRA Inc.**
Draft Registration Statement on Form S-1
Submitted August 9, 2016
CIK No. 0001681682

Dear Ms. Ravitz:

On behalf of ENDRA Inc. (the "Company"), we submit this letter providing a response to the comments raised by the Staff of the Securities and Exchange Commission (the "Staff") in its letter dated September 1, 2016 with respect to the Company's draft registration statement on Form S-1 (CIK No. 0001681682) (the "Draft Registration Statement"). Simultaneously with the filing of this letter, the Company is submitting by EDGAR an amended Draft Registration Statement (the "Amended Draft Registration Statement") relating to the contemplated registration and offering (the "Offering") of shares of the Company's common stock described in the Draft Registration Statement and responding to the Staff's comments. Below we have noted the Staff's comments in bold face type and the Company's responses in regular type.

1. Explain here, and elsewhere as appropriate, whether MRI and CT provide additional functionality that is not provided by ultrasound plus your anticipated TAEUS product.

Additional disclosure responding to this comment has been added on pages 2 and 38 of the Amended Draft Registration Statement.

2. Similarly, explain whether you are aware of any ultrasound device in development that already includes the anticipated functionality of the TAEUS device.

The Company is not aware of any ultrasound device in development that already includes the anticipated functionality of the TAEUS device. Additional disclosure to that effect has been added on pages 3 and 39 of the Amended Draft Registration Statement in response to this comment.

- 3. If you choose to highlight your contractual arrangement with GE Healthcare, please include additional details about the relationship that provide sufficient balance, such as GE Healthcare's ability to disengage with you at any time.**

Additional disclosure has been added on pages 3 and 12 of the Amended Draft Registration Statement in response to this comment.

- 4. 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.**

We will provide on behalf of the Company all such written communications under separate cover.

- 5. Please expand your disclosure to describe the level of commercialization that you anticipate you will be able to achieve with the proceeds of this offering. Your response should address each anticipated step toward commercialization, as well as anticipated funds needed to achieve that step. For example, if your CE Mark application will require clinical data, explain the timeline and costs associated with obtaining such data. If "commercialization" does not include FDA approvals, but only CE mark, or some other approval needed to achieve revenue generation, please make this clear. Make similar disclosures in other relevant areas of the prospectus, such as MD&A.**

Additional disclosure has been added on pages 33, 39 and 57 of the Amended Draft Registration Statement in response to this comment.

- 6. Since the amount of your cash and cash equivalents is not part of your capitalization, please revise to present separate and distinct totals for cash and cash equivalents and for your capitalization. Please do not combine the amount of cash and cash equivalents in the total amount for your capitalization.**

The Capitalization table has been revised on page 35 of the Amended Draft Registration Statement in response to the Staff's comment.

- 7. You make several statements about attributes you expect from your TAEUS technology, including its cost effectiveness and practicality verses currently existing options, such as MRI or surgical biopsy. Please disclose the basis for these claims. We also see that you expect your pricing to be "well below the price of a new cart-based ultrasound system." Disclose the basis for this claim.**

Additional disclosure has been added on pages 2, 3, 38 and 39 of the Amended Draft Registration Statement in response to this comment.

8. Given your disclosure in the first paragraph on page 40 that your revenue to date has been generated through sales of a single product, the Nexus 128 system, please expand your disclosure here to explain the shift in sales to higher-margin products.

Expanded and clarifying disclosure has been added on page 41 of the Amended Draft Registration Statement in response to this comment.

9. Please reconcile your disclosure here that you plan to dedicate additional resources to your efforts to sell your Nexus 128 product line in 2016 with your disclosure in the last paragraph on page 43 indicating a decline in sales and marketing expenses in 2016 and your disclosures throughout indicating a focus on commercialization of your TAEUS applications.

Revised disclosure has been added on page 41 of the Amended Draft Registration Statement in response to this comment.

10. Please clarify on page 42 whether your \$0 revenue on the three months ended June 30, 2016 indicates that you have completely ceased sales of your Nexus 128 product and if not, indicate whether you anticipate future sales.

Clarifying disclosure has been added on page 42 of the Amended Draft Registration Statement in response to this comment.

11. Explain where you derived the graphic images used in this section. Are these from in-vivo clinical trials or some other source?

In response to this comment, disclosure has been added on pages 1, 49, 53 and 54 of the Amended Draft Registration Statement identifying the source of the images.

12. Please expand your disclosure here to explain the remaining steps you need to take and the anticipated capital needed to reach revenue generation with your TAEUS technology. Include a discussion of your current stage in the process of obtaining a CE mark for the NAFLD TAEUS application and what steps remain in that regulatory process.

Expanded disclosure has been added on page 57 of the Amended Draft Registration Statement in response to this comment.

13. We note that some of your patents are set to expire in 2018. Please tell us whether any of these patents cover technology that have contributed or you expect will contribute to a significant portion of your revenue.

The Company acknowledges the Staff's comment and respectfully advises the Staff that it has one patent set to expire in 2018, which covers photoacoustic and thermoacoustic image reconstruction for transducer arrays. The Nexus 128 system uses transducers to perform photoacoustic image reconstruction, so the Company initially in-licensed this patent in order to obtain the right sell its preclinical Nexus 128 product using the covered technology. However, since the expiration of the patent does not affect the Company's ability to sell the Nexus 128 system or its contemplated TAEUS applications, the Company does not believe that the expiration of this patent will have any significant effect on its ability to generate future revenues.

14. Please expand your disclosure to name each corporation or other organization by which Mr. Wells was employed during the past five years.

Expanded disclosure has been added on page 63 of the Amended Draft Registration Statement in response to this comment.

15. Please provide the director compensation table required by Item 402(r) of Regulation S-K or advise. In this regard, we note your disclosure regarding a one-time grant of fully vested stock options for your directors' services in the year ended December 31, 2015.

For the supplemental information of the Staff, the options noted in this comment were granted in 2016. Since the Company's directors did not earn any compensation for 2015 service other than granted in 2016 and those options are properly reported in the 2016 director compensation table, there was no compensation reportable in the 2015 director compensation table so the Company chose to omit the table from the Draft Registration Statement pursuant to Item 402(a)(5) of Regulation S-K.

16. Please disclose the natural persons who exercise the sole or shared voting and/or dispositive powers with respect the shares held in the name of Blue Earth Fund LP and Endra Holdings LLC.

The requested disclosure has been added on pages 70 and 71 of the Amended Draft Registration Statement in response to this comment.

17. Please expand your disclosure here to include all related-party transactions for the period beginning January 1, 2014. See Instruction 2 to Item 404(d) of Regulation S-K.

Expanded disclosure has been added on page 72 of the Amended Draft Registration Statement in response to this comment.

18. We note your assumption that all outstanding principal and interest will convert into shares of common stock in connection with the offering. Please disclose the basis for your assumption. Disclose whether you expect to meet the conditions for the conversion of a qualified financing of at least \$3 million or an agreement by the lenders.

Clarifying disclosure has been added on pages 74 and F-16 of the Amended Draft Registration Statement in response to this comment.

19. We note that you sell to distributors. Please disclose whether you offer your distributors rights of return, price protection, or other similar rights. If so, please disclose the accounting for these rights.

Additional disclosure has been added on page F-8 of the Amended Draft Registration Statement in response to this comment.

20. Please disclose in further detail your warrant exchange program and the related accounting for your program.

Additional disclosure has been added on page F-14 of the Amended Draft Registration Statement in response to this comment.

21. We note you received a fully executed purchase order from United Well on January 29, 2016 with delivery expected for the second half of 2016. Please disclose how you will record revenue related to this purchase order.

Additional disclosure has been added on page F-15 of the Amended Draft Registration Statement in response to this comment.

We appreciate your time and attention to the Company's responses to the Staff's comments. Should you have any questions, please call me at (704) 331-7440.

Very truly yours,

/s/ Mark R. Busch

Mark R. Busch

cc: Francois Michelin, Chief Executive Officer
Michael Thornton, Chief Technology Officer
David Wells, Chief Financial Officer (Interim)
