



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

DIVISION OF  
CORPORATION FINANCE

Mail Stop 3030

September 01, 2016

Via E-mail

Francois Michelon  
Chief Executive Officer  
ENDRA Inc.  
3600 Green Court, Suite 350  
Ann Arbor, MI 48105

**Re: ENDRA Inc.  
Draft Registration Statement on Form S-1  
Submitted August 9, 2016  
CIK No. 0001681682**

Dear Mr. Michelon:

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. Explain here, and elsewhere as appropriate, whether MRI and CT provide additional functionality that is not provided by ultrasound plus your anticipated TAEUS product.
2. Similarly, explain whether you are aware of any ultrasound device in development that already includes the anticipated functionality of the TAEUS device.
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.

Implications of Being an Emerging Growth Company, page 4

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.

Use of Proceeds, page 33

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.

Capitalization, page 35

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.

Management’s Discussion and Analysis, page 38

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.

Cost of Goods Sold, page 41

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.

Sales and Marketing, page 41

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.

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.

Business, page 47

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

Regulatory Approval Pathway, page 57

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.

Intellectual Property, page 55

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.

Executive Officers, Directors and Corporate Governance, page 62

David Wells – Chief Financial Officer (Interim), page 63

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

Director Compensation, page 68

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.

Security Ownership of Certain Beneficial Owners and Management, page 69

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.

Certain Relationships and Related Transactions, and Director Independence, page 72

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.

Description of Capital Stock, page 73

Convertible Promissory Notes, page 74

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.

Financial Statements

Revenue Recognition, page F-7

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.

Note 7: Stock Options and Warrants, page F-13

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

Note 11: Subsequent Events, page F-15

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.

Francois Michelin  
ENDRA Inc.  
September 01, 2016  
Page 5

You may contact Michael Fay at (202) 551-3812 or Brian Cascio, Accounting Branch Chief, at (202) 551-3676 if you have questions regarding comments on the financial statements and related matters. Please contact Laurie Abbott at (202) 551-8071 or me at (202) 551-3528 with any other questions.

Sincerely,

/s/ Amanda Ravitz

Amanda Ravitz  
Assistant Director  
Office of Electronics and Machinery

cc: Mark R. Busch  
K&L Gates LLP