



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 3030

October 18, 2016

William Rosellini
Chief Executive Officer
Nexeon MedSystems Inc.
1708 Jaggie Fox Way
Lexington, Kentucky 40511

**Re: Nexeon MedSystems Inc.
Amendment No. 3 to Registration Statement on Form 10
Filed October 5, 2016
File No. 000-55655**

Dear Mr. Rosellini:

We have reviewed your filing 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 these comments within ten business days by providing the requested information or advise us as soon as possible when you will respond. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing your response and any amendment you may file in response to these comments, we may have further comments.

Business Overview, page 6

1. Please expand your disclosure that you intend “to engage in strategic acquisitions of additional companies” to address the statement that going public “helps consolidate Rosellini’s disparate startups under the Nexeon umbrella” that appears in the September 13, 2016 article entitled “Nexeon MedSystems to take on the likes of Medtronic as it goes public” on your website.
2. Please tell us why you do not disclose in your filing that you “seek approval for SYNAPSE, a deep brain stimulation device for Parkinson’s patients” that appears in the September 13, 2016 article on your website.

Other Investments, page 20

3. Please expand the disclosure in this section to quantify your percentage ownership in Emeritus Clinical Solutions, Inc.

Directors and Executive Officers, page 27

4. Please tell us how you confirmed the accuracy of your disclosure required by Item 401(e)(1) of Regulation S-K as it applies to Mr. Rosellini. In this regard, we note the statement that MicroTransponder is “one of Rosellini’s companies” that appears in the September 13, 2016 article on your website.

Certain Relationships and Related Transactions, page 34

5. Please reconcile your new disclosure on page 36 that Mr. Rosellini was not a related party prior to the contribution agreement in January 2016 with your disclosure in the fourth paragraph on page 37 about assets acquired from related persons.

June 30, 2016 Financial Statements of Nexeon MedSystems Inc, a Nevada corporation

Pro Forma Statement of Operations, page F-26

6. Refer to our prior comment 4. Please revise the filing to delete the last sentence in the first paragraph of Note 1 on page F-28 that refers to “The unaudited pro forma combined balance sheet as of December 31, 2015...” since the filing does not include nor is it required to include a pro forma balance sheet as of December 31, 2015. In addition, please also delete the reference to “the unaudited pro forma balance sheet” in the fifth paragraph of Note 1.
7. We see Note 1 on page F-28 indicates the pro forma combined financial statement reflects the effects of NXNV’s issuance on January 2, 2016 of 15,000,000 shares as well as the shares NXNV issued in connection with the February 16, 2016 NXDE acquisition. Given this fact and in light of the disclosures in Note 3 (b) on page F-29, tell us how you calculated the pro forma weighted average common shares disclosed in your unaudited pro forma combined statements of operations for the twelve months ended December 31, 2015 at page F-27. Revise the filing as necessary to disclose the correct pro forma weighted average common shares and pro forma loss per share for the twelve months ended December 31, 2015.

June 30, 2016 Financial Statements of Nexeon MedSystems Inc. a Nevada corporation

Notes to Financial Statements

Note 4 – Acquisition, page F-39

8. We have considered your responses to our prior comments 5 and 6. We note you indicated in your response you “determined that the consideration transferred from NXNV to the owners of NXDE to be, pursuant to ASC 805-30-30-7, the fair value of the shares issued.” We also note you indicated you “had begun a Private Placement on

February 1, 2016 and although no Units had been subscribed at the time of the exchange, the company had received commitments from investors to subscribe to 100,000 units at \$1.00 per unit.” Please revise the filing to disclose the previously referenced transaction management used to value the shares issued in the NXDE acquisition. Also, please tell us the date you received the commitments from the investors to subscribe for the purchase of Units, the legal enforceability of the referenced commitments, whether the referenced investors were unrelated third parties and if the referenced investors actually purchased the 100,000 units at \$1.00 per unit during the quarter ended June 30, 2016.

9. Refer to our prior comment 7. We note your response to our prior comment indicated the company “is in the process of engaging a third-party valuation company to ascertain the fair value of the assets acquired.” We also note it appears from disclosures on page F-28 of the filing that you recorded \$2,684,253 of intellectual property in connection with the NXDE acquisition and the asset is presented as intangible assets, net, in your June 30, 2016 balance sheet. Please revise the filing to disclose the nature of the intellectual property acquired. Also, given on the acquisition date management did not have and does not currently have any appraisal to support the valuation of the NXDE assets and liabilities acquired, please tell us and revise the filing to disclose how you determined the value of the acquired intellectual property and how you determined the net intangible asset recorded at June 30, 2016 for intellectual property is not impaired.

You may contact Gary Newberry at (202) 551-3761 or Jay Webb, Senior Accountant, at (202) 551-3603 if you have questions on the financial statements and related matters. Please contact Tom Jones at (202) 551-3602 or Tim Buchmiller, Senior Attorney, at (202) 551-3635 with any other questions.

Sincerely,

/s/ Tim Buchmiller for

Amanda Ravitz
Assistant Director
Office of Electronics and Machinery