

May 14, 2021

Olivier Taelman  
Chief Executive Officer  
Nyxoah SA  
Rue Edouard Belin 12  
1435 Mont-Saint-Guibert, Belgium

Re: Nyxoah SA  
Draft Registration

Statement on Form F-1

Submitted April 16,

2021

CIK No. 0001857190

Dear Dr. Taelman:

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.

Draft Registration Statement on Form F-1, Submitted April 16, 2021

Cover Page

1. When referencing the last reported sales price of your ordinary shares on Euronext Brussels, please disclose the price as converted into U.S. dollars at the most recent exchange rate.

Summary  
Overview, page 1

2. We note your statement on page 2: We continue to develop a substantial body of clinical evidence to demonstrate the safety and efficacy of the Genio system and your statement on page 4 referring to the Genio system as a clinically proven solution. You also refer on

Olivier Taelman  
Nyxoah SA  
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Page 2

page 5 to the Genio system being a [s]afe, effective and patient-centric therapeutic option that demonstrated compelling safety and effectiveness data. Please revise these statements and all similar statements throughout your prospectus that state or imply that your product candidates are safe or effective as these determinations are solely within the authority of the FDA and comparable regulatory bodies in other jurisdictions.

3. On page 2 you state: We believe that positive results from this trial may eliminate the need for Genio system patients to undergo the DISE procedure prior to implantation of the Genio system, thereby leading to a potential indication expansion in

Europe. Please  
DISE revise to balance these statements concerning the need to undergo the  
procedure given on page 103 you indicated a different procedure would  
still be required  
with the Genio system, specifically that a post-surgery sleep study  
will need to be  
conducted to optimize the Genio system device, or advise.  
4. We note your statement on page 3 that you plan to investigate and  
provide new  
neurostimulation technologies for OSA patients through your  
partnership with Vanderbilt  
University. Please revise to describe this partnership.  
The Genio System Market Opportunity, page 3

5. Please revise page 3 to explain how you calculated an \$11 billion  
European, Australian  
and New Zealand market opportunity and \$10 billion US market  
opportunity.  
Additionally, explain how you estimated non-compliance rates. Lastly,  
you state that  
approximately 70% of those non-compliant patients are eligible for  
hypoglossal nerve  
stimulation based on their anatomical characteristics. Please also  
revise to explain in the  
Summary the anatomical limitations of your device or hypoglossal nerve  
stimulation  
devices generally.  
Use of Proceeds, page 68

6. With respect to the first three bullets on page 68, please revise to  
specify an estimate of  
how far the proceeds from this offering will allow you to reach with  
respect to your  
development and commercialization of your Genio program in the various  
jurisdictions in  
which you seek or have obtained regulatory approval, and the  
additional technologies in  
your pipeline.  
Capitalization, page 70

7. Please revise to provide the information required by Item 3.B of Form  
20-F regarding  
indebtedness.  
Our Competitive  
Strengths, page  
90  
Taelman

Comapany  
8. NameNyxoah  
Please revise page SA  
90 to explain the significance of receiving CE-Mark  
conditional  
labeling for

May 14, 2021 Page 2 1.5T and 3T full-body MRI scan.

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FirstName LastName  
Clinical Results and Studies, page 103

9. Please revise to provide a brief explanation of the disclosed p-values  
and how p-values are  
used to measure statistical significance.

10. By presenting your trial results on page 105 and then your competitor  
s results on page  
106 your disclosure operates as a comparison. Such comparisons are not  
permissible  
where, as is the case here, these are not head-to-head trials. Please  
remove the data from  
page 106 showing your competitors trial results.

Business  
Manufacturing and Supply, page 110

11. Please provide the sources and names of principal suppliers as

applicable. See Item  
101(h)(4)(v) of Regulation S-K.  
Intellectual Property, page 111

12. Please revise pages 111-112 to provide the following with respect to the Cochlear

Collaboration Agreement, the Man & Science SA license agreement and the Vanderbilt

University license agreement, as applicable:

the nature and scope of intellectual property transferred;  
Each parties rights and obligations;  
Duration of agreement and duration of royalty term, if any;  
Termination provisions;  
Up-front or execution payments received or paid;  
Aggregate amounts paid or received to date under agreement;  
Aggregate future potential milestone payments to be paid or  
received, if any;  
Royalty rates or a royalty range, if any.

Please also file the Man & Science SA and the Vanderbilt University  
license agreements

as exhibits pursuant to Item 601 of Regulation S-K, and ensure all  
material contracts are  
described as required by Item 10.C of Form 20-F.

13. Please revise page 111 to state the types of patents you own and the  
foreign jurisdictions

in which you have granted or pending patent applications.

Principal Shareholders, page 143

14. Please revise your disclosure to identify the natural person or  
persons who have voting

and/or investment control of the shares held by Cochlear Investments  
Pty Ltd, Gilde

Healthcare, TOGETHER Partnership and Resmed Inc. on page 143.

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FirstName LastName

Certain Relationships and Related Party Transactions, page 145

15. Here or in the Business section, please clarify whether you have  
exclusive access to the

patents covered by the Man & Science SA license agreement in the Sleep  
Disordered

Breathing field and define the scope of this field and Shared  
Patents.

Description of Share Capital and Articles of Association

Articles of Association and Other Share Information, page 149

16. Please revise to disclose the exclusive forum provision of your  
Articles of Association,

and note any enforceability or other concerns associated therewith.  
Exhibits

17. Please file your agreement with the Walloon Region.

General

18. 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.

You may contact Julie Sherman at 202-551-3640 or Kevin Kuhar at  
202-551-3662 if you

have questions regarding comments on the financial statements and related  
matters. Please

contact Margaret Schwartz at 202-551-7153 or Samuel Kluck at 202-551-3233 with  
any other  
questions.

Sincerely,

Corporation Finance

Division of

Sciences

Office of Life

cc: John Rudy, Esq.