

April 16, 2019

**VIA EDGAR AND FEDERAL EXPRESS**

United States Securities and Exchange Commission  
Division of Corporation Finance  
Office of Healthcare & Finance  
100 F Street, N.E.  
Washington, D.C. 20549

**Re:   Ohr Pharmaceutical, Inc.  
      Registration Statement on Form S-4  
      Filed March 8, 2019  
      File No. 333-230168**

Ladies and Gentlemen:

On behalf of Ohr Pharmaceutical, Inc., a Delaware corporation (the "Company"), we have electronically transmitted the following: (1) this letter, and (2) Amendment No. 1 to Registration Statement on Form S-4 ("Amendment No. 1"). We have also sent to you by Federal Express courtesy copies of the following: (i) this letter, and (ii) a clean copy of Amendment No. 1, as well as a copy which has been marked to show changes from the Company's Registration Statement on Form S-4 (File No. 333-230168) (the "Registration Statement"), filed by the Company on March 8, 2019.

Set forth below are the Company's responses to the comments raised in the April 8, 2019 comment letter of the Staff (the "Staff") of the Securities and Exchange Commission (the "Commission"). For your convenience, we have provided each of the Staff's comments followed by the Company's responses.

All responses provided in this letter are based solely on information provided by the Company.

Form S-4 dated March 8, 2019

Questions and Answers about the Ohr Special Meeting and the Merger, page 1

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1. *Please revise the letter to shareholders; Questions and Answers about the Ohr Special Meeting and the merger; and the summary to eliminate the repetitive detailed information. Much of the detailed discussion is more appropriate for discussions appearing later in the document.*

**Response:** The Company has revised the Letter to Shareholders, Questions and Answers about the Ohr Special Meeting and the Merger, and the Summary in Amendment No. 1 to eliminate the repetitive detailed information.

2. *The response to the question about the necessity of the reverse stock split indicates it is desirable for a number of reasons but only identifies the Nasdaq requirements. Please identify the other reasons why a reverse split is desirable and ensure that you provide a description of the factors you will consider when determining in reverse split ratio in an appropriate location in your document.*

**Response:** The Company has revised its disclosure on page 6 of Amendment No. 1 to identify the other reasons why a reverse split is desirable. Additionally, the Company has disclosed in paragraph the first full paragraph on page 233 of Amendment No.1 the factors the Company will consider when determining the reverse split ratio.

3. *Please revise the discussion of the material income tax consequences to clarify that shareholders receiving shares in lieu of fractional shares may be subject to tax.*

**Response:** The Company has revised its disclosure on page 5 and the second paragraph on page 25 of Amendment No. 1 to clarify that shareholders receiving shares in lieu of fractional shares may be subject to tax.

Summary, page 15

4. *You state that NeuBase is a "leader" in the discovery and development of peptide nucleic acids, and that its proprietary PATrOL platform allows for "rapid" drug development. Please balance your disclosure by disclosing that NeuBase was recently incorporated in August 2018, NeuBase has not initiated any clinical trials for any of its product candidates or submitted an IND, and it does not currently possess the resources necessary to independently develop its product candidates. In addition, disclose that the PATrOL technology is licensed from a third party. In light of the early stage of NeuBase's business and product development, please also provide the basis for your statement that NeuBase is a leader in developing, and that its platform allows for rapid development of, gene therapies.*

**Response:** The Company has revised its disclosure in the fourth and fifth paragraphs on page 15, the fourth paragraph on page 256 and the fourth paragraph of 257 of Amendment No.1 to address the Staff's comment number 4.

5. *Please revise the "Summary of the Merger" and "Overview of the Merger Agreement" to include only the most material aspects of the merger agreement. Additionally, ensure that the summary presents a balanced discussion. For example, if you decide to keep the discussion of the reasons for the merger in the summary, balance the discussion with an equally prominent discussion of any risks or potential negative effects the merger may have on Ohr shareholders.*

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**Response:** The Company has revised the “Summary of the Merger” and “Overview of the Merger Agreement” to include only the most material aspects of the merger agreement. The Company has deleted the discussions of the reasons for the merger in the summary.

Interests of Certain Directors, Officers and Affiliates of Each of Ohr and NeuBase. . . . page 25

6. *Expand your discussion to explain that Mr. Backenroth is expected to serve as the CFO of the combined company, and to disclose the payments that are payable to him and Dr. Slakter in connection with the merger.*

**Response:** The Company disclosed in the first paragraph on page 24 of Amendment No. 1 that Mr. Backenroth is expected to serve as Chief Financial Officer of the combined company and his anticipated compensation arrangements with the combined company. The Company also disclosed in the fifth paragraph on page 24 of Amendment No. 1 the payments that Dr. Slakter and Mr. Backenroth are entitled to in connection with the merger, and that Mr. Backenroth will not receive such payments in connection with the merger, in the event that he enters into an employment agreement with the combined company, other than his anticipated new compensation arrangements with the combined company.

Risk Factors, page 36

7. *We note your disclosure on page 235 and in Article VIII of the amended and restated certificate of incorporation of the combined company regarding an exclusive forum provision. Please add a risk factor disclosing the existence of this provision and that such a provision may limit a shareholder’s ability to bring a claim in a judicial forum that it finds favorable for such disputes and may discourage lawsuits with respect to such claims. Please also disclose whether the provision applies to actions arising under the Securities Act. In that regard, we note that Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all suits brought to enforce any duty or liability created by the Securities Act or the rules and regulations thereunder. If this provision applies to claims arising under the Securities Act, then please state that shareholders will not be deemed to have waived the company’s compliance with the federal securities laws and the rules and regulations thereunder. If this provision does not apply to actions arising under the Securities Act, please also ensure that the exclusive forum provision in the governing documents states this clearly.*

**Response:** The Company added a Risk Factor entitled “The combined company’s amended and restated certificate of incorporation provides that the Court of Chancery of the State of Delaware is the exclusive forum for substantially all disputes between the combined company and its stockholders, which could limit the combined company’s stockholders’ ability to obtain a favorable judicial forum for disputes with the combined Company or its directors, officers or employees” on page 120 of Amendment No. 1. We have also disclosed in the third paragraph on page 239 of Amendment No. 1 that this provision does not apply to actions arising under the Securities Act and revised the exclusive forum provision accordingly in the Company’s form of charter attached as Annex C of Amendment No. 1 on page C-5.

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The combined company's management will own a significant percentage. . . page 115

8. *Revise your disclosure to also disclose the combined percentage ownership to be owned by the directors and executive officers of the combined company. To that end, we note that although you state here that Dr. Stephan will be the combined company's sole officer and director, you state on page 9 that there will be five directors and two executive officers following the merger.*

**Response:** The Company has revised its disclosure on the first paragraph of page 116 of Amendment No. 1 to disclose the combined percentage ownership to be owned by the directors and executive officers of the combined company. Additionally, the Company revised its disclosure on page 9 of Amendment No. 1 to indicate that Dr. Stephan will serve as the combined company's President, Chief Executive Officer and a director.

Ohr will pay certain of its executive officers "parachute payments" upon the completion of the merger. . . page 119

9. *Please revise the discussion to identify each executive entitled to a parachute payment and quantify the amount of the payment.*

**Response:** The Company has revised its disclosure on the last paragraph of page 120 of Amendment No. 1 to identify each executive entitled to a parachute payment and the amount of the payment.

Ohr's pre-merger net operating loss carryforwards and certain other tax attributes. . . page 119

10. *Please quantify the NOLs and other tax attributes that are subject to limitation and clarify the factors that will determine the extent of the limitation.*

**Response:** The Company has revised its disclosure on page 120 of Amendment No. 1 to quantify the NOLs and other tax attributes that are subject to limitation and clarified the factors that will determine the extent of the limitation.

The Merger

Background of the Merger. page 124

11. *You state in the second paragraph on page 125 that you had preliminary discussions in January and February 2018 with parties that had contacted you regarding a potential strategic transaction, and you state elsewhere in this section that you considered various potential business combinations (such as with Parties A through G). Please clarify if these preliminary and more detailed discussions all contemplated reverse mergers, or if alternative transactions were discussed. Please also expand your disclosure in the second paragraph on page 126 to further explain why the board determined to pursue a reverse merger after considering various strategic alternatives.*

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**Response:** The Company has revised its disclosure in the second paragraph on page 126 of Amendment No. 1 to clarify that all of the discussions contemplated a reverse merger. The Company also expanded its discussion in the second paragraph on page 127 of Amendment No. 1 to further explain why the board determined to pursue a reverse merger after considering various strategic alternatives.

12. *Revise your discussion on page 136 to disclose Ms. Almenoff's reason(s) for resigning from the special committee.*

**Response:** The Company revised its disclosure in the third paragraph on page 136 of Amendment No. 1 to disclose the reasons Ms. Almenoff resigned from the special committee.

13. *Please revise the last paragraph on page 139 to clarify the outstanding and major terms on which you and Party C were not able to agree.*

**Response:** The Company has revised its disclosure in the seventh paragraph on page 139 of Amendment No. 1 to set forth the outstanding and major terms on which the Company and Party C were not able to agree.

14. *Please revise the third paragraph on page 138 to disclose the material terms proposed in the draft term sheet you delivered to NeuBase. Also revise the third and fourth paragraphs on page 139 to disclose the material terms and conditions of the transaction that were discussed. In addition, expand the discussions in this section of your merger agreement negotiations to disclose the material terms and explain how they changed pursuant to negotiations, including the non-solicitation provision.*

**Response:** In response to the Staff's comments, the Company has revised the third and fourth paragraphs on page 140 of Amendment No. 1 to disclose the material terms proposed in the draft term sheet the Company delivered to NeuBase and the first and second paragraph on page 140 of Amendment No. 1 to disclose the material terms and conditions of the transaction that were discussed. The Company also expanded its disclosures on pages 139 through 141 of Amendment No. 1 to disclose the material terms and how they changed pursuant to negotiations. There were no negotiations or changes to the non-solicitation provision from the initial draft provided by NeuBase.

15. *Please identify any meetings where Mr. Backenroth's employment by the combined company was discussed.*

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**Response:** The Company has disclosed in pages 139 through 140 of Amendment No. 1 those meetings where Mr. Backenroth's employment by the combined company was discussed.

Opinion of Ohr's Financial Advisor, page 149

16. *Expand the disclosures regarding Roth's IPO comparables, publicly traded comparable companies, early stage merger and acquisition transactions, and licensing transactions analyses to disclose the underlying data used to calculate the implied enterprise value reference ranges. To the extent you considered a transaction with any companies that had product candidates that were beyond the preclinical stage, please disclose this information. Please also expand the disclosure to explain how Roth used the reference ranges. For example, did Roth then apply these ranges to calculate ranges of estimated implied enterprise values for NeuBase?*

**Response:** The Company has revised its disclosure on pages 154 through 160 of Amendment No.1 to address the Staff's comment number 16.

17. *Please expand the disclosure to disclose the selection criteria used to select the companies and transactions used in the analyses and whether any companies or transactions meeting the selection criteria were excluded from the analyses. If any were excluded, please explain why.*

**Response:** The Company has revised its disclosure on pages 155 through 157 of Amendment No.1 to address the Staff's comment number 17.

18. *We note the disclosure on page 157 that Roth relied on financial projections when preparing the discounted cash flow analysis. Please revise to disclose the financial projections used and discuss all material assumptions used to develop the projections, including which product candidates obtain FDA approval, when they receive FDA approval, when these products become commercially available, the assumed market for each product candidate and any assumptions about competition. Additionally, discuss the possible impact if your assumptions are incorrect.*

**Response:** The Company has revised its disclosure on page 158 of Amendment No. 1 to disclose the projections that formed the basis of the discounted cash flow analysis and the impact to the Company if the assumptions are incorrect.

19. *Please expand your disclosure to further explain the Clinical Development Success Rates in Phases 1, 2 and 3 and NDA stages of development, quantify these rates and explain how this data was used to adjust the projected cash flows. Given your statement that the enterprise value range is \$56.8 million to \$216.6 million, clarify whether this analysis considered the possibility that the NeuBase Therapeutics product candidates do not successfully complete clinical trials. If the analysis did not consider this possibility, please explain why.*

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**Response:** The Company has revised its disclosure on page 158 to address the Staff's comment number 19.

Material U.S. Federal Income Tax Consequences of the Merger, page 170

20. *Please revise to remove language stating that the discussion is a general discussion and clarify that it addresses all material tax consequences. We note your disclosure on page 171 referencing the opinions of Troutman Sanders and Paul Hastings. Please revise your exhibit index to include Paul Hastings tax opinion and clarify that the tax opinion includes the discussion of consequences of the merger qualifying as a "reorganization."*

**Response:** In response to the Staff's comment, the Company has removed language stating that the discussion is a general discussion and have included additional disclosure in the second paragraph on page 171 of Amendment No. 1 to clarify that this section addresses all material tax consequences. Additionally, the Company has revised the exhibit index to include Paul Hastings tax opinion and included disclosure that the tax opinion includes a discussion of the qualification of the merger as a "reorganization" within the meaning of Section 368(a) of the Code and the consequences related thereto.

OHR Executive Compensation, page 208

21. *Please also separately provide executive compensation information for Dr. Stephan, and biographical information for both him and Mr. Backenroth, as required by Item 19(a)(7) of the Form S-4.*

**Response:** In response to the Staff's comment, we have included disclosure on pages 226 through 228 and pages 293 through 295 of Amendment No. 1 to provide executive compensation information for Dr. Stephan, and biographical information for both him and Mr. Backenroth.

Ohr's Business

Assets and Technologies, page 246

22. *You state that you are a passive joint venturer in DepYmed, and on page 248 that you are party to a license agreement with Akina. Please clarify whether you have any ongoing monetary or other obligations under these agreements.*

**Response:** The Company has revised its disclosure in the first paragraph on page 251 to Amendment No. 1 to clarify that the Company does not have any ongoing obligations (monetary or otherwise) under the DepYmed agreement. Furthermore, the Company has revised its disclosure in the fourth paragraph on page 252 of Amendment No. 1 to clarify the ongoing obligations the Company has under the Akina agreement.

NeuBase's Business

Business Strategy, page 253

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23. *You state that NeuBase believes its scientists can optimize the properties of its PATrOL-enabled drugs. You also state here that NeuBase has "distinct partnering strategies" and on page 70 that NeuBase does not currently possess the necessary resources to independently develop and commercialize its product candidates. Please revise to clarify the product development that can be conducted by the combined company on its own following the transaction.*

**Response:** The Company has revised its disclosure in the fourth paragraph on page 257 to Amendment No.1 to address the Staff's comment number 23.

NeuBase's PATrOLTM Technology Platform, page 255

24. *You reference early preclinical studies on page 256, as well as beliefs about the technology's advantages. Please substantially revise your disclosure in this section to describe the early preclinical studies and disclose the specific results disclose who conducted such studies, and your rights to the data. Also show how these results support your statements on pages 252 and 256 regarding the various advantages of the PATrOL platform.*

**Response:** The Company has revised its disclosures on pages 260 through 261 of Amendment No.1 to address the Staff's comment number 24.

25. *Please revise your disclosure beginning on page 257 to more clearly and fully explain how the platform works, including the significance of the non-polar single chiral center backbone, and why you believe it can be utilized for DNA therapeutics.*

**Response:** The Company has revised its disclosures on pages 256 through 257 of Amendment No.1 to address the Staff's comment number 25.

Intellectual Property, page 259

26. *You disclose that you have licensed patent applications covering various patents and patent applications. Please revise to clarify whether they are licensed pursuant to the Carnegie Mellon license agreement, and to the extent any are not, please revise to disclose the terms of such other license agreement(s) or advise. In addition, for each type of patent family that you have described on pages 259-260, please revise to disclose the jurisdictions covered by the issued patents or pending patent applications, and the corresponding expiration (or expected expiration) dates.*

**Response:** The Company has revised its disclosures on pages 263 through 264 of Amendment No. 1 to address the Staff's comment number 26.

27. *Please revise to clarify the extent your patent protection (from the Carnegie Mellon license or otherwise) covers the 16 Janus bases referenced on page 257.*

**Response:** The Company has revised its disclosures on page 263 of Amendment No. 1 to address the Staff's comment number 27.

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License Agreement with Carnegie Mellon University, page 260

28. *Please revise to disclose other material terms of your agreement, including all payment made to date, the aggregate potential milestone payments under the agreement and term and termination provisions. To the extent not otherwise disclosed, please also disclose the expiration dates and jurisdictions of the underlying patents and patent applications.*

**Response:** The Company has revised its disclosure on the first and second paragraphs on page 265 of Amendment No. 1 to address the Staff's comment number 28. The Company respectfully advises the Staff that material terms of the agreement are disclosed in the Amendment No. 1. The Company further advises the Staff that the Company believes that disclosure of any payment made by NeuBase to date, and the aggregate potential milestone payments under the agreement, would result in competitive harm to the Company and are the subject of a request for confidential treatment submitted on behalf of the Company with the Staff.

29. *Please revise to clarify, if true, that following the transaction, the warrant will have been exercised and the preemptive rights will be terminated. Please also disclose this agreement in the Related Party Transactions section, and to the extent accurate, state that Carnegie Mellon will continue to have piggyback rights.*

**Response:** The Company has revised its disclosures on the eighth and ninth paragraphs on page 264 of Amendment No. 1 to address the Staff's comment number 29.

General

30. *Please provide us with copies of the materials that your financial advisor prepared and shared with your board in connection with this transaction, including any board books, transcripts and summaries of oral presentations made to the board. We may have additional comments after we review those materials.*

**Response:** The Company will furnish the Staff a copy of presentation materials provided to the Company's Board of Directors on January 2, 2019, which are the only materials that the Company's financial advisor prepared and shared with the Company's board of directors. These presentations are being provided under separate cover requesting confidential treatment pursuant to the provisions of C.F.R. Section 200.83 and Rule 12b-4 promulgated under the Securities Exchange Act of 1934, as amended. In accordance with such rule, the Company will request that those materials be returned promptly following completion of the Staff's review thereof.

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As requested, the Company acknowledges that the Company and its management are responsible for the adequacy and accuracy of their disclosures, notwithstanding any review, comments, action or absence of action by the Staff.

Please do not hesitate to contact the undersigned at (212) 704-6030, if you have any questions or comments regarding the filing or this letter.

Very truly yours,

/s/ Joseph Walsh, Esq.

Joseph Walsh, Esq.

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cc: Securities and Exchange Commission

Angela Connell  
Suzanne Hayes  
Ibolya Ignat  
Dorrie Yale

Ohr Pharmaceutical, Inc.

Dr. Jason Slakter, Chief Executive Officer  
Sam Backenroth, Chief Financial Officer

NeuBase Therapeutics, Inc.

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