



DIVISION OF
CORPORATION FINANCE

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

April 8, 2019

Sam Backenroth
Chief Financial Officer
Ohr Pharmaceutical Inc.
800 Third Avenue, 11th Floor
New York, NY 10022

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

Dear Mr. Backenroth:

We have reviewed your 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 amending your registration statement and providing the requested information. 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 any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments.

Form S-4 dated March 8, 2019

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

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.
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.

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.

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.
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.

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.

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.

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.

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.

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.

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.
12. Revise your discussion on page 134 to disclose Ms. Almenoff's reason(s) for resigning from the special committee.
13. Please revise the last paragraph on page 138 to clarify the outstanding and major terms on which you 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.
15. Please identify any 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?
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.
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.
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.

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."

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.

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.

NeuBase's Business

Business Strategy, page 253

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.

NeuBase's PATrOL™ 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.
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.

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.
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.

License Agreement with Carnegie Mellon University, page 260

28. Please revise to disclose other material terms of your agreement, including all payments

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.

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.

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.

We remind you that the company and its management are responsible for the accuracy and adequacy of their disclosures, notwithstanding any review, comments, action or absence of action by the staff.

Refer to Rules 460 and 461 regarding requests for acceleration. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

You may contact Ibolya Ignat at 202-551-3636 or Angela Connell at 202-551-3426 if you have questions regarding comments on the financial statements and related matters. Please contact Dorrie Yale at 202-551-8776 or Suzanne Hayes at 202-551-3675 with any other questions.

Sincerely,

Division of Corporation Finance
Office of Healthcare & Insurance

cc: Joseph Walsh, Esq. - Troutman Sanders LLP