



DIVISION OF
CORPORATION FINANCE

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

March 22, 2022

Jeffrey Hackman
President and Chief Executive Officer
Comera Life Sciences Holdings, Inc.
12 Gill Street
Suite 4650
Woburn, Massachusetts 01801

**Re: Comera Life Sciences Holdings, Inc.
Registration Statement on Form S-4
Filed March 8, 2022
File No. 333-263377**

Dear Mr. Hackman:

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.

Registration Statement on Form S-4

Summary of the Proxy Statement/Prospectus

Summary Risk Factors, page 37

1. Please revise your disclosure in this section to quantify Comera's losses pursuant to the "business email compromise fraud."

Selected Unaudited Pro Forma Condensed Combined Financial Information, page 41

2. We note your statement that the historical financial information presented in this section has been adjusted to give pro forma effect to the following events that are related and/or directly attributable to the Business Combination. Please revise your disclosure to specify these events or advise.

Unaudited Pro Forma Condensed Combined Financial Statements

Note 3 - Transaction Accounting Adjustments, page 119

3. Please revise your note to pro forma adjustment H to disclose the basis for the reclassification of the public warrants to equity, and clarify that the private warrants will continue to be recognized as liabilities.

Note 4 - Earn-Out Shares, page 120

4. Please provide us your analysis under ASC 815-40-15 supporting your determination that the contingent obligation to issue Earn-Out shares is considered indexed to the company's own stock and therefore meets the requirement for equity classification.

The Background of the Business Combination, page 129

5. We note your response to prior comment 10 and revised disclosure. Please revise your disclosure to (i) disclose the reasons why OTR's board of directors did not retain third-party experts to conduct scientific due diligence on Comera and (ii) describe the OTR board's discussion on January 27, 2022 and the relevant findings of their review.
6. We note your response to prior comment 11 and re-issue in part. Please revise your disclosure to explain why OTR did not include any preclinical companies in the comparable company analysis and only selected companies that appear to be significantly more advanced in clinical development than Comera.

We further your note statements that OTR believed it was "inappropriate" to rely on the "quantitative" results of the selected companies and made "qualitative" judgments. Please revise your disclosure to state what is meant by "quantitative" results, explain why OTR believed it was "inappropriate" to rely on these results, and to describe what "qualitative" judgments were made by OTR in its comparable company analysis.

Information About Comera, page 181

7. We note your response to prior comment 13 and your revised disclosure. Please further revise to clarify the term of these collaboration agreements and disclose how the parties are intended to agree that the project(s) undertaken pursuant to such agreements have been completed. Please also provide us with your analysis as to why none of these agreements constitute material contracts pursuant to Item 601(b)(10) of Regulation S-K.

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.

Jeffrey Hackman
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You may contact Jeanne Bennett at 202-551-3606 or Angela Connell at 202-551-3426 if you have questions regarding comments on the financial statements and related matters. Please contact Alan Campbell at 202-551-4224 or Celeste Murphy at 202-551-3257 with any other questions.

Sincerely,

Division of Corporation Finance
Office of Life Sciences

cc: Janeane R. Ferrari, Esq.