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August 10, 2023

VIA EDGAR

United States Securities and Exchange Commission
Division of Corporation Finance, Office of Life Sciences
100 F Street, NE
Washington, DC 20549

Attention: Franklin Wyman
Angela Connell
Lauren S. Hamill
Joe McCann

Re: CohBar, Inc.
Registration Statement on Form S-4
Filed July 3, 2023
File No. 333-273101

Ladies and Gentlemen:

This letter is submitted on behalf of CohBar, Inc. (the "Company" or "CohBar") in response to the comments of the staff of the Division of Corporation Finance (the "Staff") of the U.S. Securities and Exchange Commission (the "Commission") with respect to the Company's Registration Statement on Form S-4 (File No: 333-273101), initially filed on July 3, 2023 (the "Registration Statement"), as set forth in the Staff's letter dated August 3, 2023 (the "Comment Letter"). The Company is concurrently submitting Amendment No. 1 to the Registration Statement ("Amendment No. 1"), which includes changes to reflect responses to the Staff's comments and other updates.

For reference purposes, the text of the Comment Letter has been reproduced herein with responses below each numbered comment. For your convenience, we have italicized the reproduced Staff comments from the Comment Letter. Unless otherwise indicated, page references in the descriptions of the Staff's comments refer to the Registration Statement, and page references in the responses refer to Amendment No. 1. All capitalized terms used and not otherwise defined herein shall have the meanings set forth in Amendment No. 1.

Registration Statement on Form S-4

Questions and Answers About the Merger

Will the common stock of the combined company trade on an exchange?, page 5

1. *You disclose that CohBar has filed a listing application for the combined company's common stock with Nasdaq and that it is expected that such common stock will trade on the exchange. We also note Section 7.1(d) of the Merger Agreement provides that the approval of the listing of the additional shares of Parent Common Stock on Nasdaq shall have been obtained. Please revise the Q&A and the Letter to Stockholders to clarify whether the closing of the merger is conditioned upon Nasdaq's approval of the listing application. Disclose whether this condition is waivable and if so, indicate whether Nasdaq's determination will be known at the time that stockholders are asked to vote to approve the merger.*

RESPONSE: The Company acknowledges the Staff's comment and has revised the disclosure in the Letter to Stockholders and in the Q&A on page 5 of Amendment No. 1 to reflect the Staff's comment.

What are the material U.S. federal income tax consequences of the Merger to holders of CohBar capital stock?, page 7

2. *Please revise to clarify, if true, that the US holders of CohBar equity will not recognize any gain or loss for U.S. federal income tax purposes as a result of the merger.*

RESPONSE: A new sentence has been added to this Q&A to clarify that CohBar stockholders will generally not recognize any gain or loss for U.S. federal income tax purposes as a result of the Merger. See page 8 of Amendment No. 1 to reflect the Staff's comment.

Prospectus Summary

CohBar, page 9

3. *With reference to your disclosure on page 211, please revise the Summary and the Q&A if appropriate to explain that if the merger is completed, the combined company will focus on developing Morphogenesis' product candidates, and it is anticipated that the combined company will not continue to develop CohBar's legacy product candidates. Also, revise the second Q&A on page 4 to provide context for the discussion of the CVRs.*

RESPONSE: The Company acknowledges the Staff's comment and has revised the disclosure on pages 1, 4 and 11 of Amendment No. 1 to reflect the Staff's comment.

Morphogenesis, page 10

4. *We note your disclosure referencing potential FDA accelerated approval designation and entry into a Special Protocol Assessment (SPA) Agreement. Revise to balance your Summary disclosures by clarifying that Morphogenesis' candidates have not qualified for such designation and that there is no guarantee that such designation will be granted. Also, revise to clarify that entry into an SPA Agreement with FDA may not lead to faster or less costly product development or a regulatory review or approval process, and does not increase the likelihood that your product candidate will ever receive marketing approval.*

RESPONSE: The Company acknowledges the Staff's comment and advises the Staff that a sentence has been added to the end of the paragraph that begins with "Morphogenesis is in discussions .. . . ." on page 11 of Amendment No. 1 to state, among other things, that there is no guarantee that Morphogenesis will be granted an SPA for a registration-directed trial for IFx-2.0 under the accelerate approval pathway and that such an agreement will not guarantee approval or lead to a faster or less expensive approval process. Similar language has also been added on page 218 at the end of the paragraph that begins with "Morphogenesis is in discussions . . . ." Similar language has also been inserted into the risk factor captioned "The successful development of immunotherapies is highly uncertain." on page 56 of Amendment No. 1.

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5. *We note your disclosure that Morphogenesis is a Phase 2/3 clinical stage immunooncology company. In light of your disclosures on page 219 and 226-228, please remove the reference and clarify that your Phase 1b trial is on-going.*

RESPONSE: The Company acknowledges the Staff's comment and advises the Staff that the words "Phase 2/3" have been deleted from "Phase 2/3 clinical stage oncology company" on pages 11 and 218 of Amendment No. 1. Also in response to this comment from the Staff, a new third paragraph has been inserted under the "Morphogenesis" caption on page 10 to provide more detailed information regarding the Phase 1b trial (which information is already included in more detail in the "Morphogenesis' Business" section).

6. *Please revise your discussion of the Merkel cell carcinoma program to highlight and explain the following:*

- *Clarify the number of Merkel cell carcinoma patients that have been treated to date with the IFx-Hu2.0 cancer vaccine product candidate and briefly discuss the treatment response.*
- *Disclose the estimated US Merkel cell carcinoma patient population.*
- *Explain the term "adjunctive therapy.".*

RESPONSE: The Company acknowledges the Staff's comment and advises the Staff that (i) in response to the first bullet of this comment, a new third paragraph has been inserted under the "Morphogenesis" caption on page 11 of Amendment No. 1 to provide information regarding the Phase 1b trial and the number of Merkel cell carcinoma patients that have been treated and (ii) in response to the second and third bullets, two new sentences have been added to the fifth paragraph under the "Morphogenesis" caption. The Company also advises the Staff that the information regarding the size of the U.S. patient population is information that was already included in the "Morphogenesis' Business" section.

The FDA or comparable foreign regulatory authorities may disagree with Morphogenesis' regulatory plans..., page 58

7. *Please revise the risk factor to explain, if true, that Morphogenesis plans to obtain accelerated approval designation for some or all of its product candidates under the accelerated approval pathway and the impact to the company if accelerated approval does not materialize.*

RESPONSE: The Company acknowledges the Staff's comment and has revised the first paragraph of this risk factor on page 61 of Amendment No. 1 to describe the impact associated with failure to obtain an accelerated approval pathway for IFx-2.0.

Risks Related to the Combined Company

The bylaws of the combined company will provide that..., page 94

8. *We note that the bylaws of the combined company will provide that the U.S. federal district courts are the exclusive forum for any complaint asserting a cause of action arising under the Securities Act. Please revise your disclosure to state that there is uncertainty as to whether a court would enforce such provision. In this 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.*

RESPONSE: The Company acknowledges the Staff's comment and has revised the disclosure on page 96 of Amendment No. 1 in response to the Staff's comment.

The combined company's ability to use net operating loss carryforwards..., page 96

9. *Please revise this risk factor to quantify the NOLs and other tax attributes that are or may become subject to limitation.*

RESPONSE: The Company acknowledges the Staff's comment and has revised the disclosure on page 99 of Amendment No. 1 to reflect the Staff's comment.

The Merger

Background of the Merger, page 106

10. *Please revise the disclosure on page 107 to disclose the terms of Morphogenesis' initial non-binding indication of interest. Clarify whether CohBar management identified Morphogenesis as one of the top merger candidates as of November 8 and one of the top three candidates as of November 15. To the extent that CohBar management did not view Morphogenesis as the top or one of the top candidates, please discuss the reason(s).*

RESPONSE: The Company acknowledges the Staff's comment and has revised the disclosure on page 108 of Amendment No. 1 to reflect the Staff's comment.

11. *Please revise to discuss in greater detail the negotiations concerning the contingent value rights and the stock purchase agreement with K&V Investment One.*

RESPONSE: The Company acknowledges the Staff's comment and has revised the disclosure on pages 112 through 113 and 117 of Amendment No. 1 to reflect the Staff's comment.

12. *Please also revise this section to explain the diligence that CohBar's management, board and advisors conducted concerning Morphogenesis.*

RESPONSE: The Company acknowledges the Staff's comment and has revised the disclosure on pages 109 and 113 of Amendment No. 1 to reflect the Staff's comment.

13. *With reference to the February 13, 2023 entry, describe the material differences between a traditional staggered sign-and-close reverse merger and simultaneous sign-and-close reverse merger structure. Explain which party sought the simultaneous sign-and-close structure and why. Also indicate when Mr. Fitzgerald first raised his concerns with this proposed structure.*

RESPONSE: The Company acknowledges the Staff's comment and has revised the disclosure on pages 108 and 111 of Amendment No. 1 to reflect the Staff's comment.

14. *We refer to the May 10, 2023 entry. Please revise to quantify the expected reduction to the net cash that CohBar would deliver under the staggered sign-and-close structure relative to the previously planned simultaneous sign-and-close structure. Explain how the parties concluded that Morphogenesis's valuation should be increased from $125 million to $130.6 million based on this decision. In this regard, it is unclear why the structural change resulted in an increase to the Morphogenesis valuation as opposed to a decrease in the CohBar valuation.*

RESPONSE: The Company acknowledges the Staff's comment and has revised the disclosure on page 115 of Amendment No. 1 to reflect the Staff's comment.

The Merger
CohBar's Reasons for the Merger; Recommendation of the CohBar Board, page 114

15. *Please revise to provide additional context as to how the $25 million enterprise value ascribed to CohBar was derived.*

RESPONSE: The Company acknowledges the Staff's comment and has revised the disclosure on page 118 of Amendment No. 1 to reflect the Staff's comment.

16. *Please tell us why the expected cash balances are blank. In this regard, please clarify whether the disclosure in the section reflects the board's view as of May 23 when it approved the merger agreement or whether the disclosure reflects its expectations at a different point in time.*

RESPONSE: The Company acknowledges the Staff's comment and has revised the disclosure on page 119 of Amendment No. 1 to reflect the Staff's comment. The Company advises the Staff that the disclosure pertaining to the Company's Board's consideration of the expected cash balances of the combined company as of the closing of the Merger reflects the Company's Board's view as of May 22, 2023 (the date that the Company's Board approved the Merger Agreement).

Morphogenesis' Reasons for the Merger, page 120

17. *Please tell us whether, and if so why, the Morphogenesis Board considered the additional financing to be received under the Securities Purchase Agreement to consist of additional financing "committed" from the Initial Financing and Second Financing." In this regard, we note based on your disclosure on page 2 and elsewhere that the Second Financing would occur, if ever, at the option of the Investor.*

RESPONSE: The Company acknowledges the Staff's comment and advises the Staff that a new bullet has been added on page 123 to include disclosure stating why and how the Morphogenesis Board considered the possibility of the Second Financing in reaching its decision to approve the Merger. Related changes were also made to the bullet that precedes the new bullet. Furthermore, similar changes were made in the Prospectus Summary to the bulleted language on page 14 of Amendment No. 1.

Opinion of CohBar's Financial Advisor, page 123

18. *We note the disclosure on page 123 indicating that CohBar hired Ladenburg to render an opinion as to the fairness of the Exchange Ratio, from a financial point of view, to the holders of CohBar Common stock. Accordingly, please provide Ladenburg's analysis regarding the $25 million implied valuation of CohBar or advise.*

RESPONSE: The Company acknowledges the Staff's comment and advises the Staff that the $25 million equity valuation of CohBar is comprised of $5 million of net cash that CohBar had on hand and an appropriate premium valuation of $20 million based on the valuations of a sample of comparable precedent transactions since 2018. The $25 million equity valuation was above the median and mean valuations of the sample of comparable precedent transactions.

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19. *We note your disclosure indicating that Ladenburg reviewed relevant financial and operating data provided by CohBar and Morphogenesis as well as "certain internal analyses." Please revise to clarify whether Ladenburg considered or utilized any financial or operating data to conduct one or more of the three principal financial analyses. If not, then also explain why it did not do so and further explain if/how this data factored into Ladenburg's fairness determination.*

RESPONSE: The Company acknowledges the Staff's comment and has revised the disclosure on page 126 of Amendment No. 1 to reflect the Staff's comment.

20. *We note your references to "considerations and judgments" concerning historical and projected financial and operating characteristics and other factors that could affect the value of the Selected Publicly Traded Companies, Selected Precedent IPO Companies, target companies from the Selected Precedent M&A Transactions and Morphogenesis to which they were being compared. Please revise your disclosure in this section to describe such considerations and judgments made by Ladenburg in its comparable company and precedent transaction analysis.*

RESPONSE: The Company acknowledges the Staff's comment and has revised the disclosure on page 129 of Amendment No. 1 to reflect the Staff's comment.

Opinion of CohBar's Financial Advisor

Transaction Overview as of the Date of the Opinion

Implied Morphogenesis Valuation, page 125

21. *Please provide the following information regarding Ladenburg's derivation of an implied valuation for Morphogenesis of $130.6 million.*

- *Provide a reconciliation of the number of Morphogenesis shares of common stock on a "fully diluted, as converted treasury stock method basis" as discussed on page 125 (209,684,773 shares) to the sum of its preferred stock, common stock, warrants and stock options that were outstanding at March 31, 2023.*
- *Explain how you determined the $0.62 per share value for Morphogenesis common shares.*
- *Provide an illustration that shows how the 0.3114 Exchange Ratio was determined.*
- *Confirm expected timing for the reverse stock split, which you appear to indicate will occur prior to or on the merger date, as discussed on page 263.*

RESPONSE: The Company acknowledges the Staff's comment and has revised the disclosure in the Letter to Stockholders and on page 128 of Amendment No. 1 to reflect the Staff's comment.

Director Positions Following the Merger, page 131

22. *We note your disclosure concerning the two directors appointed by CohBar. We also note the disclosure on page 131 concerning Mr. Fitzgerald's May 3, 2023 statement that he would not resign from the board at closing. Please revise or advise to clarify Mr. Fitzgerald's role, if any, in the combined company following the closing of the merger.*

RESPONSE: The Company acknowledges the Staff's comment and advises the Staff that, if Proposal No. 1, Proposal No. 2 and Proposal No. 3 are approved by stockholders at the CohBar Special Meeting, Mr. Fitzgerald will not be re-elected to the Company's Board and will have no role in the combined company following the closing of the Merger.

Material U.S. Federal Income Tax Consequences of the Merger, page 136

23. *Please include a tax opinion covering the material tax consequences of: (i) the merger to United States holders of Morphogenesis capital stock, (ii) the merger to United States holders of CohBar capital stock and (iii) the issuance of CVRs to US holders of CohBar capital stock. For guidance, refer to Staff Legal Bulletin No. 19 (Oct. 14, 2011).*

RESPONSE: The Company acknowledges the Staff's comment and advises the Staff that the tax opinions will be filed by amendment.

24. *With reference to the disclosure on page 137, please tell us whether there is significant doubt regarding whether the Merger qualifies as either a "reorganization" or a "contribution.".*

RESPONSE: The Company acknowledges the Staff's comment and advises the Staff that counsel to Morphogenesis and the Company have concluded that there is not significant doubt regarding whether the Merger qualifies as either a "reorganization" or a "contribution." Accordingly, no change has been made to the subject disclosure in response to this comment.

Material U.S. Federal Income Tax Consequences of the CVRs..., page 138

25. *To the extent that there is a lack of authority directly addressing the tax consequences of the transaction, conflicting authority or significant doubt about the tax consequences of the transaction, counsel or accountant may issue a "should" or "more likely than not" opinion to make clear that the opinion is subject to a degree of uncertainty. For guidance please refer to Staff Legal Bulletin No. 19. Also, revise the Q&A disclosure on page 8 to highlight the tax consequences to the prospective CVR holders as opposed to the company's conclusion that the CVRs are a distribution of property:*

RESPONSE: The Company acknowledges the Staff's comment and has revised the disclosure on pages 8, 140 and 141 of Amendment No. 1 to reflect the Staff's comment.

Nasdaq Stock Market Listing, page 140

26. *Please revise this section to disclose the "certain period of time" following the proposed reverse stock split wherein the combined company must maintain a minimum bid price of $4.00 in order for the Nasdaq listing application to be accepted.*

RESPONSE: The Company acknowledges the Staff's comment and has revised the disclosure on page 142 of Amendment No. 1 to reflect the Staff's comment.

Morphogenesis Executive Compensation

Summary Compensation Table, page 180

27. *The sum of the compensation does not equal the amount in the "Total" column for Dr. Bianco in 2022. Please revise or explain your calculations.*

RESPONSE: The Company acknowledges the Staff's comment and advises the Staff that the "Total" column in the Summary Compensation Table for 2022 has been corrected so that it equals the sum of the other compensation figures included for 2022.

Morphogenesis Pipeline, page 217

28. *The pipeline table here and on page 225 should graphically reflect the actual, and not the anticipated, status of your product candidates as of the latest practicable date, as well as the material stages you will need to complete before marketing your products. Accordingly, please revise the tables to reflect that your IFx-2.0 candidate targeting advanced or metastatic Merkel cell carcinoma ("MCC") remains in Phase 1b. In this regard, your disclosures on pages 219 and 227-228 indicate that this trial is on-going and that you only have preliminary results from that trial. Similarly, the arrow for IFx-2.0 in metastatic cancers indicates that the Phase 2 basket trial is underway even though your disclosure on page 218 indicates that Morphogenesis is "planning" the Phase 2 basket trial for Q4 2024. Also, revise the "Highlights" column to reflect that Morphogenesis must identify a lead candidate for IFx-3.0.*

RESPONSE: The Company acknowledges the Staff's comment and has revised the disclosure on pages 219 and 228 of Amendment No. 1 to reflect the Staff's comment.

Cancer Vaccines

IFx Technology , page 221

29. *Please revise the figure at the bottom of page 221 to ensure that all text is legible without the need for magnification.*

RESPONSE: The Company acknowledges the Staff's comment and has revised the disclosure on page 224 of Amendment No. 1 to reflect the Staff's comment.

Morphogenesis Development Program and Development Strategy, page 225

30. *With respect to IFx-2.0, please revise the "Highlight" column of this table to be consistent with the table on page 217. Clarify, if true, that Morphogenesis plans to enter the Phase 2/3 and Phase 2 basket studies in 2024.*

RESPONSE: The Company acknowledges the Staff's comment and has revised the disclosure on page 228 of Amendment No. 1 to reflect the Staff's comment.

31. *With reference to the pro forma information disclosed on page 282, please revise to discuss the planned allocation for the cash that will be available to the combined company upon closing.*

RESPONSE: The Company acknowledges the Staff's comment and advises the Staff that a new paragraph has been added on page 229 under the caption "Morphogenesis Development Program and Development Strategy" to discuss the planned allocation for the cash that will be available to the combined company upon closing, including from the Initial Financing.

Clinical Data

IFx-2.0 Clinical Trials, page 226

32. *We note that your disclosures throughout this section include terms such as "complete response," "partial response," "stable disease," "progressive disease," and "overall response rate." Please revise to define such terms, including how such responses were measured. Also, clarify the acronyms for these responses and explain the reference to "pCR" which appears on page 228. Additionally, please revise here, and elsewhere as appropriate, to explain that evidence of clinical activity and/or clinical response does not mean that the product candidate has or will demonstrate clinical efficacy or that it will prove to be safe as required to receive regulatory approval.*

RESPONSE: The Company acknowledges the Staff's comment and advises the Staff that a new paragraph has been added under the caption "IFx-2.0 Clinical Trials" on page 229 of Amendment No. 1 that defines the foregoing terms and explains that they are well-established measures under the generally accepted Response Evaluation Criteria in Solid Tumors (RECIST) guidelines. In addition, a second new paragraph has been added under the same caption explaining that evidence of clinical response does not mean that IFx-2.0 or any other product candidate has demonstrated or will demonstrate sufficient clinical efficacy or safety as will be required in order to receive regulatory approval. A variant of this second new paragraph has also been added on page 11 and on page 56 under the risk factor entitled "The successful development of immunotherapies is highly uncertain."

Phase 2/3 registration trial to be conducted under Accelerated Approval Pathway, page 226

33. *Please revise the heading so that it does not imply that you have reached agreement with FDA concerning the accelerated approval pathway.*

RESPONSE: The Company acknowledges the Staff's comment and advises the Staff that the word "anticipated" has been added to the heading in response to this comment, and a sentence has been added to the paragraph under such caption explaining that Morphogenesis has not yet reached final agreement with the FDA as to all the details regarding the planned study.

34. *Explain briefly why you identify the prospective trial as a Phase 2/3 as opposed to a Phase 2 trial.*

RESPONSE: The Company acknowledges the Staff's comment and advises the Staff that additional disclosure has been added to this paragraph to explain why the planned trial is identified as a Phase 2/3 trial as compared to a Phase 2 trial on page 230 of Amendment No. 1.

35. *With reference to your disclosure on pages 243-244, please revise to disclose the basis on which you plan to seek accelerated approval. In this regard, please clarify whether you will seek approval by (i) establishing that the drug product has an effect on a surrogate endpoint that is reasonably likely to predict clinical benefit and/or (ii) that the drug product has an effect on an intermediate clinical endpoint that can be measured earlier than an effect on irreversible morbidity or mortality, or IMM. Also, revise the table on page 227 to specify the primary and secondary endpoints, or advise. Explain the references to FPI", "LPI" and "TLR."*

RESPONSE: The Company acknowledges the Staff's comment and advises the Staff that the discussion of the proposed trial has been expanded to disclose the basis for

seeking accelerated approval on page 230 of Amendment No. 1. In addition, the subject table has been revised, with a note inserted thereunder to define "FPI", "LPI", and "TLR", and to also define the endpoint terms in the table that are not defined earlier in the prospectus. The revised table appears on page 230 of Amendment No. 1.

Intellectual Property, page 233

36. *Please revise your patent tables on pages 235 and 236 to include the type of patent protection granted for the products or technologies in each disclosed patent family (i.e., composition of matter, use, or process).*

RESPONSE: The Company acknowledges the Staff's comment and has revised the disclosure on page 238 of Amendment No. 1 to reflect the Staff's comment.

Licensed Intellectual Property Rights Relating to Delta Receptor Technology, page 235

37. *Please revise your disclosure regarding Morphogenesis' license agreements with Moffitt Cancer Center and the West Virginia University Research Corporation to include a discussion of all material payment terms, including quantification of potential milestone payments segregated by development and commercial milestone payments, and the applicable royalty rates to be paid by each party. In the event a range is provided in place of the actual royalty rate, such range should be within ten percentage points.*

RESPONSE: The Company acknowledges the Staff's comment and advises the Staff that the descriptions of the terms of the license agreements with Moffitt Cancer Center and West Virginia Research Corporation have been expanded to include a more detailed description of payment terms and royalties.

Morphogenesis' Management's Discussion and Analysis of Financial Condition and Results of Operations

Results of Operations, page 265

38. *Please provide a discussion and analysis of financial condition and results of operations for the years ended December 31, 2022 and 2021. Refer to Item 303(b) of Regulation S-K.*

RESPONSE: The Company acknowledges the Staff's comment and advises the Staff that a discussion and analysis has been added for the years ended December 31, 2022 and 2021 on page 271 of Amendment No. 1.

Unaudited Pro Forma Condensed Combined Financial Information, page 279

39. *Please correct the heading on page 282 to reference the unaudited proforma condensed combined balance sheet.*

RESPONSE: The Company acknowledges the Staff's comment and has revised the disclosure on page 288 of Amendment No. 1 to reflect the Staff's comment.

40. *Please explain why the Contingent Value Rights to be issued in conjunction with the planned merger are not reflected in your pro forma financial statements.*

RESPONSE: The Company acknowledges the Staff's comment and advises the Staff that the Morphogenesis has advised the Company that Morphogenesis does not intend to start up development efforts for any of CohBar's legacy mitochondrial assets following the Merger. Morphogenesis has further advised the Company that, based on the foregoing, Morphogenesis' management has concluded that it is not probable that there will be any gross proceeds related to (a) the disposition of any CohBar legacy assets pursuant to the CVR Agreement that may result in payments being made under the CVRs or (b) any Catch-up Dividend. The Company has revised the disclosures on page 285 and page 292 of Amendment No. 1 to reflect the Staff's comment.

41. *Please revise your disclosure on page 285 to quantitatively illustrate how the Exchange Ratio was calculated.*

RESPONSE: The Company acknowledges the Staff's comment and has revised the disclosure on page 292 of Amendment No. 1 to reflect the Staff's comment.

Morphogenesis Inc. and Subsidiary

Notes to the financial statements

Note 9 - TuHURA acquisition, page F-50

42. *Please describe and quantify the methods and assumptions used to determine the $15 million value for Morphogenesis common shares issued to acquire certain assets of TuHURA Biopharma, Inc.*

RESPONSE: The Company acknowledges the Staff's comment and has revised Note 9 to describe and quantify the methods and assumptions used to determine the value for the Morphogenesis common shares issued for the assets of TuHURA Biopharma, Inc.

Exhibits

43. *Please file your license agreements with the Moffitt Cancer Center, and WVURC. Also file the Tuhura BioPharma Inc. asset acquisition agreement.*

RESPONSE: The Company acknowledges the Staff's comment and has filed the two Moffitt Cancer Center agreements, the WVURC license agreement and the TuHURA Asset Purchase Agreement as Exhibits 10.27, 10.28, 10.29 and 10.30, respectively, to Amendment No. 1.

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If you should have any questions or comments with respect to the foregoing, please contact me at (415) 393-4631 or via e-mail at BBerns@gibsondunn.com.

Very truly yours,

/s/ Branden C. Berns

Branden C. Berns
Gibson, Dunn & Crutcher LLP

cc: Joe Sarret, CohBar, Inc.
Jeff Biunno, CohBar, Inc.
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