June 22, 2023

VIA EDGAR

Suzanne Hayes
Dillon Haigus
United States Securities and Exchange Commission
Division of Corporation Finance
Office of Life Sciences
100 F Street, N.E.
Washington, D.C. 20549

Re: Diffusion Pharmaceuticals Inc.
Registration Statement on Form S-4
Filed May 11, 2023
File No. 333-271823

Dear Mr. Newberry:

This letter is in response to the comments of the staff of the United States Securities and Exchange Commission (the "**Staff**") contained in your letter dated June 9, 2023, regarding the Registration Statement on Form S-4 (the "**Registration Statement**"), which was filed by Diffusion Pharmaceuticals Inc. (the "**Company**") with the United States Securities and Exchange Commission (the "**Commission**") on May 11, 2023.

The Company has filed today Amendment No. 1 to the Registration Statement ("**Amendment No. 1**") together with this letter via EDGAR correspondence. For the convenience of the Staff, the numbering of the paragraphs below corresponds to the numbering of the comment in the Comment Letter, the text of which we have incorporated into this response letter in italicized type, and which is followed by the Company's response. Unless otherwise indicated, all page references in the responses are to page numbers in Amendment No. 1. Capitalized terms used herein but not defined shall have the meanings ascribed to them in Amendment No. 1.

Registration Statement on Form S-4

Questions and Answers About Diffusion's Special Stockholder Meeting And The Merger
What is the Merger, page 12

1. Comment: *Please briefly discuss Diffusion's $12.0 million net cash Merger closing condition and the potential impact of this condition on the merger. Additionally, given the Exchange Ratio is subject to adjustment based on Diffusion's net cash at the time of the Merger's closing, please disclose Diffusion's current amount of net cash, as calculated pursuant to the terms of the Merger Agreement.*

Response: The Company acknowledges the Staff's comment and has added disclosure to the response to the question "What is the Merger?" beginning on page 13 of Amendment No. 1. The Company advises the Staff that it has estimated net cash as calculated under the Merger Agreement based on its cash, cash equivalents and marketable securities as of March 31, 2023, the most current date as of which it has financial statements. The Company notes in its revised disclosure that it expects to continue to incur losses in future periods primarily related to the proposed Merger with EIP and, as a result, available cash, cash equivalents and marketable securities will continue to decrease.

As a holder of Diffusion Common Stock, what happens if I do not return a proxy card or otherwise provide proxy instructions, as applicable?, page 17

2. Comment: *Please revise to explain what happens if shareholders of Diffusion Common Stock do not return their proxy card. As currently drafted, this Q&A only explains what happens if shareholders return a signed proxy card without marking any selections or do not give instruction to their brokers.*

Response: The Company acknowledges the Staff's comment and has revised the Q&A and related response beginning on page 18 of Amendment No. 1.

Risk Factors
Risks Related to Diffusion, page 47

3. Comment: *Please include a risk factor addressing any material risks associated with the pending legal proceeding by Paul Feller, the former Chief Executive Officer of Diffusion's legal predecessor, which you mention on page 195. Alternatively, tell us why you believe risk factor disclosure is not required.*

Response: In response to the Staff's comment, the Company added a risk factor on page 51 of Amendment No. 1.

Background of the Merger, page 106

4. Comment: *Please revise to more specifically describe the criteria proposed to assess potential counterparties. For example, if you were looking for parties with a candidate that had achieved a specific stage of development, what stage was that? What were you looking for with respect to the depth of the pipeline table? Additionally, please discuss whether the criteria and/or the prioritization of the criteria changed over time. We note that the counterparty's willingness to commit to continuing to develop TSC following the consummation of the transaction is included in the list of criteria, but we also note your statement on page 21 that you will continue to look for opportunities to sell or out-license TSC in newly diagnosed GMB patients. Please clarify when it was determined that the combined company would not continue to develop TSC.*

Response: The Company acknowledges the Staff's comment and has revised the disclosure beginning on page 109 of Amendment No. 1.

5. Comment: *Please clarify how you narrowed the 16 companies that submitted non-binding indications of interest between November 14, 2022 and November 18, 2022 to the five companies that Diffusion's board of directors, members of management, representatives of CG and Dechert identified on November 21, 2022. To the extent that you used the Criteria to eliminate the other nine, please explain how the Criteria was used in the selection process.*

Response: The Company acknowledges the Staff's comment and has revised the disclosure beginning on page 113 of Amendment No. 1.

EIP Reasons for the Merger, page 122

6. Comment: *Please expand the bullet point indicating that the shares of Diffusion Common Stock issued to EIP equity holders will be registered on a Form S-4 registration statement to clarify that certain stockholders who have agreed to vote all of their shares of EIP capital stock in favor of the merger will also not have their shares registered on the Form S-4.*

Response: The Company acknowledges the Staff's comment and respectfully notes for clarification that all equity holders of EIP that are issued shares of the Company's common stock pursuant to the Merger will have their shares registered on the Registration Statement on Form S-4, with the only caveat that certain holders that are affiliates and/or parties to lock-up agreements will not have shares that are freely tradable. The Company revised the disclosure beginning on page 123 of Amendment No. 1 to clarify.

The Merger
Opinion of Diffusion's Financial Advisor, page 123

7. Comment: *We note disclosure on page 124 that, in connection with Canaccord Genuity's review of the Merger and developing of its opinion, it reviewed certain information, "among other things." Please revise to include all material information reviewed by Canaccord Genuity*.

Response: We have been advised by Canaccord Genuity that the disclosure on page 124 includes all material information that Canaccord Genuity reviewed in developing its fairness opinion. In connection therewith, the Company acknowledges the Staff's comment and has revised the disclosure on page 125 of Amendment No. 1 to delete "among other things".

Summary of Financial Analyses, page 125

8. Comment: *Please revise the discussions of the "Diffusion Selected Reverse Mergers Analysis," "EIP Selected Public Companies Analysis," and "EIP Selected Initial Public Offering Precedent Analysis" to describe the factors CG used in determining they were "relevant to consider," including classifications of industry sector(s) and key product development stage(s) used. To the extent CG determined that they shared "similar business characteristics," describe these characteristics and any other factors that warranted inclusion in the analyses. To the extent there were other companies or transactions that met the selection criteria that were not included in the analyses, please disclose this information and explain why they were excluded from the analyses*.

Response: The Company acknowledges the Staff's comment and has revised the disclosure on pages 127, 128 and 129 of Amendment No. 1, including the disclosure of any companies or transactions that met the selection criteria that were not included in the analyses, if applicable.

9. Comment: *Please explain the statement, "[b]ased on its analysis and other considerations that CG deemed relevant in its experience and professional judgement, CG derived a range of implied total enterprise values for Diffusion based on the first quartile and third quartile enterprise values of the companies in the selected reverse mergers of ($15.8) million and $2.6 million, respectively." Please explain what other considerations CG deemed relevant and how they impacted CG's analysis*.

Response: The statement referenced in the Staff's comment is intended to explain how Canaccord Genuity derived a range of implied total enterprise values for Diffusion using the first quartile and third quartile implied total enterprise values of the companies in the selected reverse mergers, which first and third quartiles were selected based on Canaccord Genuity's experience and professional judgment. Please refer to the Company's revised disclosure on pages 127, 128 and 129 of Amendment No. 1.

10. Comment: *For each of the analysis presented, please disclose the values calculated for each company or transaction and clarify what value(s) were used to calculate the implied value for Diffusion post-merger. For example, did CG use the mean, median, high or low value from the calculations of the comparable companies/transactions?*

Response: The Company acknowledges the Staff's comment and has revised the disclosure on pages 127, 128 and 129 of Amendment No. 1. We respectfully note that, as indicated in the prior response and the disclosure on pages 127, 128 and 129 of the Registration Statement, Canaccord Genuity used the first and third quartile implied total enterprise values derived from the "Diffusion Selected Reverse Mergers Analysis," "EIP Selected Public Companies Analysis," and "EIP Selected Initial Public Offering Precedent Analysis" to calculate the implied total enterprise value range for Diffusion.

Certain Unaudited Long-Range Financial Projections of EIP, page 131

11. Comment: *Please revise to:*

- *explain why you chose to use a 14-year time period for the Financial Projections;*
- *explain how you arrived at the probability of regulatory approval for neflamapimod;*
- *disclose the date you assumed that neflamapimod will be granted regulatory approval;*
- *discuss whether the Financial Projections factored in the possibility of FDA approval of new competitive products.*

Additionally, confirm that all information that Canaccord Genuity considered in reaching its fairness determination, including any of these assumptions, is disclosed in this filing, or revise the filing accordingly.

Response: The Company acknowledges the Staff's comment and has revised the disclosure on page 133 of Amendment No. 1.

Diffusion Business, page 177

12. Comment: *Please clarify that the combined company's business following the merger will not include continuing to develop TSC.*

Response: The Company acknowledges the Staff's comment and has revised the disclosure on page 178 of Amendment No. 1.

TSC's Demonstrated Clinical Safety Profile, page 178

13. Comment: *Please revise this heading and paragraph to remove any implication that TSC, which has not been approved by the FDA, is safe or effective. Safety and efficacy determinations are in the exclusive purview of the FDA or other comparable foreign regulators. In this regard, please similarly revise your disclosures on this page that "TSC has been observed to be safe" and that your clinical trials have demonstrated "TSC's safety and effects on oxygenation[.]".*

Response: The Company acknowledges the Staff's comment and has revised the disclosure on page 179 of Amendment No. 1.

EIP Business
Overview, page 196

14. Comment: *We note the pipeline table on page 197. Please define the term "WW.".*

Response: The Company acknowledges the Staff's comment and has revised the table on page 198 of Amendment No. 1 to reflect that "WW" refers to "Worldwide."

15. Comment: *Please include a description of the Vertex agreement, including amounts paid to date, aggregate potential development milestone payment obligations, aggregate potential sales milestone payment obligations, the royalty percentage (or a range no greater than 10 points), minimum annual expenditures, diligence requirements and when your royalty obligation expires.*

Response: The Company acknowledges the Staff's comment and has revised the disclosure on page 215 of Amendment No. 1 and included a cross-reference on page 198 of Amendment No. 1.

Our Strengths, page 198

16. Comment: *Given your phase 2b trial of neflamapimod is still ongoing, your disclosure that "approval for neflamapimod could be obtained with the conduct of a single 24-week treatment duration Phase 3 study involving a few hundred subjects, that would have to simply replicate the results of the planned Phase 2b trial" is speculative. Moreover, it does not align with your risk factor disclosure on page 73 that there has never been an approval of a drug in DLB which "could result in a longer than expected regulatory review process[.]" Please revise.*

Response: The Company acknowledges the Staff's comment and has revised the disclosure on page 199 of Amendment No. 1, deleting the phrase, "that would have to simply replicate the results of the planned Phase 2b trial," clarifying that there is a significant difference between placebo and neflamapimod treatment and adding qualifying language, including that "there can be no assurances," with a cross-reference to the applicable risk factors. As revised, the Company believes that the disclosure is appropriately caveated. Specifically, the Company has been advised by EIP that EIP has had discussions with the FDA in which the FDA, in written comments, indicated that a single 24-week treatment duration phase 3 trial would be sufficient for approval. The Company believes that the disclosure aligns with the risk factor language via the phrase "pending confirmation in an end-of-Phase 2 meeting with the FDA that we plan to have after Phase 2b." While the Company respectfully acknowledges the risk that approval for neflamapimod could take longer, the statement in the disclosure acknowledges that it will only hold true when confirmed in the end-of-Phase 2 meeting with the FDA with the Phase 2b clinical trial result.

Efficacy Results in Phase 2a Trial of Neflamapimod in DLB, page 203

17. Comment: *Please expand your discussion to explain how to interpret p-values.*

Response: The Company acknowledges the Staff's comment and has added disclosure on page 203 of Amendment No. 1.

Planned Phase 2b Clinical Study in DLB, page 209

18. Comment: *We note disclosure on page 210 that EIP was awarded a $21 million grant from the National Institutes of Health's National Institute on Aging in January 2023 that is estimated to fully fund development costs associated with the planned Phase 2b trial. We also note disclosure on page 66 that these funds will be disbursed over the course of the trial as costs are incurred and that the grant is "subject to certain conditions for funding in subsequent years." Please disclose what portion of these funds have been disbursed and any material conditions for future funding. If there is a written agreement underlying this grant, please file the agreement as an exhibit pursuant to Item 601(b)(10) of Regulation S-K.*

Response: The Company acknowledges the Staff's comment and has added disclosure on page 211 of Amendment No. 1. The Company advises the Staff that there is no written agreement for the grant.

Principal Stockholders of EIP, page 293

19. Comment: *Please identify in a footnote to the table all natural persons who have voting and/or investment power over the shares held by AI New Holdings 12 LLC. Please make a corresponding revision to the footnote to the Principal Stockholders of the Combined Company table on page 296, as appropriate*.

Response: The Company acknowledges the Staff's comment and has revised the footnotes on pages 296 and 299 of Amendment No. 1.

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If you have any questions regarding the responses to the comments of the Staff, or require additional information, please contact me by phone at (212) 698-3616.

Sincerely,

/s/ David S. Rosenthal

David S. Rosenthal

cc: William Elder (Diffusion Pharmaceuticals Inc)
John E. Alessi (Dechert LLP)