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

DIVISION OF
CORPORATION FINANCE

August 23, 2023

David Lucchino
President and Chief Executive Officer
Frequency Therapeutics, Inc.
75 Hayden Avenue, Suite 300
Lexington, MA 02421

Re: Frequency Therapeutics, Inc.
Registration Statement on Form S-4
Filed July 27, 2023
File No. 333-273490

Dear David Lucchino:

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 filed July 27, 2023

Questions and Answers, page 2

1. Please revise this section, where appropriate, as well as the Prospectus Summary, to disclose Frequency's net cash as of the most recent practicable date and to describe and quantify the factors that could affect Frequency's net cash between this date and the closing date of the Merger.

2. Please revise this section, where appropriate, to briefly and clearly reflect your disclosure elsewhere in the proxy statement/prospectus that the combined company will pursue the business of Korro Bio while attempting to sell the assets related to Frequency's current business.

3. Please revise this section, where appropriate, to include the ownership of the combined

company on a fully-diluted basis.

4. Please revise this section, where appropriate, as well as the Prospectus Summary, to disclose the material terms of the Pre-Closing Financing.

Q: What are the CVRs being issued to Frequency stockholders?, page 4

5. Please revise the response to this question, as well as your disclosure on page 214, to disclose the fees payable to the Rights Agent, when those fees will be paid and the party responsible for paying the fees.

Prospectus Summary
Korro Bio, Inc., page 13

6. Your discussion of Korro Bio should present a balanced view of the company and its current stage of development. Please revise your Prospectus Summary to include a more balanced discussion of Korro Bio. Your discussion of Korro Bio's strengths and benefits should be balanced with equally prominent disclosure of weaknesses and challenges. By way of example only:

   - Reflect your disclosure on page 100 that the risk of failure of Korro Bio's programs is high.
   - Reflect your disclosure on page 101 that Korro Bio is uncertain regarding the delivery of product candidates to target tissues, the level of editing efficiency required for disease impact, its ability to achieve pharmacological activity in humans and the safety of its edits.
   - Clarify that it will be "many years" before Korro Bio commercializes a product candidate, if ever.
   - Reflect your disclosure on pages 103 and 116 that RNA editing is a novel technology that is not yet clinically validated for human therapeutic use, Korro Bio is not aware of any clinical trials for safety or efficacy having been completed by any third party using RNA editing and that no gene editing therapeutic product has been approved in the U.S. or Europe.
   - Reflect your disclosure on page 108 that the feasibility of developing product candidates using Korro Bio's approach is preliminary and limited.
   - Reflect your disclosure on page 115 that regulators have not yet established any definitive guidelines related to overall development considerations for oligonucleotide drugs.

7. We note your statements regarding Korro Bio's performance (e.g. Korro Bio's programs "harness the body's natural RNA editing process to effect a precise yet transient single base edit", "Korro Bio can edit the transcriptome with high efficiency and specificity", etc.). Please revise throughout this section and the section titled "Korro Bio's Business" to clarify, if true, that the performance claims related to Korro Bio and its technology have only been observed in preclinical studies and that Korro Bio has yet to submit an IND to

the FDA or commence a clinical trial. Your clarifying disclosure should be equally as prominent as the performance claims.

8. We note in your disclosure you state "Korro Bio's AATD product candidate is a proprietary oligonucleotide that utilizes an established lipid nanoparticle, or LNP, based delivery system administered intravenously to transiently restore production of normal A1AT in liver hepatocytes." Please revise to disclose whether this product candidate delivery system has been finalized and to reflect your disclosure on page 109 that LNPs have not been clinically proven to deliver oligonucleotides for RNA editing.

9. We note your references here and throughout to Korro Bio's "life changing" medicines and claims that Korro Bio's product candidates have the potential to "establish a new standard of care." These characterizations appears to be premature given Korro Bio's current stage of development. Please remove them.

10. Please revise here and throughout to provide the basis for your claim that Korro Bio has assembled the "preeminent suite of technologies and capabilities" to build its OPERA platform.

11. Please revise here and throughout to provide the basis for your claim that Korro Bio's approach can repair pathogenic SNVs, engineer *de novo* SNVs and change amino acids on proteins to endow them with desired properties while preserving their broader functional capabilities.

Korro Bio's Pipeline, page 15

12. Please revise your pipeline chart here and on page 284 to ensure that the Phase 1, Phase 2 and Phase 3 columns are at least as wide as each of the other columns in the chart.

13. Your disclosure indicates that Korro Bio will need to complete additional preclinical work before it submits an IND for its AATD product candidate. Please shorten the AATD pipeline arrow here and on page 284 accordingly.

14. We note that you have included multiple rows in your pipeline chart for programs that are minimally discussed in the prospectus and for which Korro Bio has yet to identify a product candidate. Please remove these programs from the chart. Alternatively, please provide us with an analysis as to why each of these programs is sufficiently material to the business of the combined company as to merit inclusion in the pipeline chart.

Korro Bio's Strategy, page 17

15. We note your statement that Korro Bio intends to "rapidly" advance its AATD product candidate into the clinic. Please revise this statement here and on page 286 as well as any similar disclosure to remove any implication that Korro Bio will be successful in developing its product candidate in a "rapid" or accelerated manner as such statements are speculative.

16. Please revise here and on page 286 to provide the basis for your statements that Korro Bio

has a “leadership position” in RNA editing and genetic medicines.

Background of the Merger, page 153

17. Please revise this section to describe the negotiations related to the Pre-Closing Financing.

18. Your disclosure elsewhere in the prospectus indicates that Korro Bio sold additional shares of Series B-2 Preferred Stock during the quarter ended March 31, 2023. Please disclose the valuation ascribed to Korro Bio in this financing and disclose whether Frequency’s board of directors considered this valuation in its evaluation of the Merger. To the extent that Frequency’s board did not consider this valuation, please explain why.

19. Your disclosure throughout this section indicates that the Frequency Board believed that Korro Bio’s valuation should be lower and that it directed TD Cowen to inform J.P. Morgan that an equity premium for Frequency below $20.7 million would not be acceptable. However, the final terms of the transaction appear to contain a valuation of Korro Bio that is higher than the initial valuations reviewed by Frequency’s board and a Frequency equity premium that is capped at $15.0 million unless Frequency’s Net Cash exceeds $25.0 million and could be as low as $12.5 million. Please revise this section to disclose why the Frequency Board modified its position on these issues. Alternatively, please advise.

20. Your disclosure indicates that on July 11, 2023, the parties agreed to a sliding equity premium scale for Frequency which would apply a $12.5 million to $20.0 million premium, depending on Frequency’s level of net cash. However, this sliding scale does not appear to match the terms of the definition of Frequency Equity Value on page 192. Please revise your disclosure. Alternatively, please advise.

21. Please revise this section, as well as your disclosure on page 20, to disclose why the Frequency Board did not retain a third-party financial advisor who had not been previously involved in the transaction to provide a fairness opinion.

Financial Analyses, page 174

22. Please revise your disclosure regarding the publicly traded companies analysis as follows:

- Disclose in more detail how TD Cowen identified each comparable company and why these companies were deemed to be “relevant for the purposes of analysis.”
- Disclose the stage of development of each company in the analysis as well as each company’s estimated enterprise value. To the extent that clinical-stage companies are included in the analysis, please explain why TD Cowen included companies that are at a more advanced stage of development than Korro Bio and whether TD Cowen applied any discount factor to these companies.

23. Please revise your disclosure regarding TD Cowen’s DCF analysis to disclose why TD Cowen believed that an analysis of the cash flows over 22 years was reasonable.

Certain Unaudited Financial Projections for Korro Bio, page 176

24. Please revise here and/or on page 165, as appropriate, to disclose the extent to which the Frequency Board considered the Korro Bio Projections in making its decision to approve the Merger. To the extent the Frequency Board considered the Korro Bio Projections, please disclose whether the Frequency Board determined that the time period and revenue figures presented in the projections were reasonable and, if so, the reasons underlying these determinations.

25. Please revise to discuss the assumptions underlying the projections with more granularity. For example, disclose whether the projections consider market competition for Korro Bio's product candidates and whether the projections incorporate any possibility of Korro Bio's product candidates failing to obtain marketing approval, market acceptance or insurance coverage.

26. Please disclose and explain the bases for and the nature of the material assumptions that underlie the line items presented in the financial projections. Please ensure the level of detail provided is sufficient enough for an investor to evaluate and understand the reasonableness of the assumptions, uncertainties and/or contingencies underlying the projections as well as the inherent limitations on the reliability of projections in order to make informed investment decisions. Please specifically address the growth rates as well as identify the material product revenue streams underlying these projections.

27. We note your disclaimer that the Korro Bio Projections will not be updated even in the event that any or all of the assumptions underlying such prospective financial information are no longer appropriate. This disclaimer does not appear to be appropriate. Please remove it.

Korro Bio's Business, page 282

28. Please revise this section to describe the material terms of Korro Bio's agreement with Genevant and file the agreement as an exhibit to your registration statement.

Key Advantages of Oligonucleotide-Based ADAR-Mediated RNA Editing as a Therapeutic Modality, page 288

29. We note your disclosure in the graphic that oligo-based RNA editing has precedented delivery, tolerability and manufacturing as well as multiple approved products. Please reconcile these claims with your statements in Risk Factors that Korro Bio is uncertain how it will deliver product candidates to target tissues, RNA editing is a novel technology that has not yet been validated for human therapeutic use, Korro Bio is not aware of clinical trials being completed by third parties using RNA editing or similar technologies, regulators have not established definitive guidelines for oligonucleotide drugs and no gene editing therapeutic product has been approved in the U.S. or Europe. Similarly revise the bullets at the bottom of page 289.

Fit-for-purpose delivery, page 292

30. Please revise this bullet to clarify whether Korro Bio has tested any of these delivery technologies for its product candidates and to clarify whether any approved RNA editing drugs utilize these technologies.

Korro Bio's Approach to Overcome the Limitations: Transiently Correcting the SERPINA1 Variant on RNA, page 300

31. Please remove Figure 12 as the claims in this graphic appear to be premature given Korro Bio’s current stage of development.

Patent Portfolio, page 313

32. Please revise to disclose for each material patent and patent application the subject matter to which such patents or patent applications relate, the expiration date, the type of patent protection and applicable jurisdictions.

Principal Stockholders of the Combined Company, page 423

33. Please revise to disclose the natural persons who hold voting and/or dispositive power over the shares held by each of the institutions disclosed in the beneficial ownership table.

Korro Bio, Inc.
Notes to Condensed Consolidated Financial Statements
Note 10. Genevant Agreement, page F-96

34. Please revise your disclosure in the filing to disaggregate the aggregate total of $40.5 million potential payments to separately quantify payments by clinical, regulatory and commercial milestones.

Exhibits

35. Please file the offer letter with Dr. Aiyar and the employment agreement with Mr. Agarwal as exhibits to your registration statement.

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 Sasha Parikh at 202-551-3627 or Mary Mast at 202-551-3613 if you have questions regarding comments on the financial statements and related matters. Please contact Cindy Polynice at 202-551-8707 or Alan Campbell at 202-551-4224 with any other questions.

Sincerely,

Division of Corporation Finance
Office of Life Sciences

cc: Jennifer Yoon, Esq.