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

Please revise this 1. section, where appropriate, as well as the Prospectus Summary, to disclose Frequency 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.

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

David Lucchino FirstName LastNameDavid

Frequency Therapeutics, Inc.Lucchino

August 23, NameFrequency

Therapeutics, Inc. 2023

August

Comapany

Page 2 23, 2023 Page 2

FirstName LastName

company on a fully-diluted basis.

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

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. company and its include a more strengths and benefits

Your discussion of Korro Bio should present a balanced view of the

current stage of development. Please revise your Prospectus Summary to

balanced discussion of Korro Bio. Your discussion of Korro Bio

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

Reflect your disclosure on page 115 that regulators have not yet established any

definitive guidelines related to overall development considerations for

oligonucleotide drugs.

We note your statements regarding Korro Bio s performance (e.g. Korro Bio s programs

s natural RNA editing process to effect a harness the body precise yet transient single

Korro Bio can edit the transcriptome with high base edit efficiency and specificity

etc.). Please revise throughout this section and the section titled Korro Bio s Business

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

David Lucchino

FirstName LastNameDavid

Frequency Therapeutics, Inc.Lucchino

Comapany

limited.

August 23, NameFrequency

2023 Therapeutics, Inc.

August

Page 3 23, 2023 Page 3

FirstName LastName

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

prominent as the performance claims.

We note in your disclosure you state "Korro Bio 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 $% \left(1\right) =\left(1\right) +\left(1\right$

 $\,$ 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 $\ensuremath{\mathsf{AATD}}$

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

David Lucchino

FirstName LastNameDavid

Frequency Therapeutics, Inc.Lucchino

Comapany

August 23, NameFrequency

2023 Therapeutics, Inc.

August

Page 4 23, 2023 Page 4

FirstName LastName

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 $% \left(1\right) =\left(1\right) +\left(1\right)$

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.

Your disclosure indicates that on July 11, 2023, the parties agreed to 20. a sliding equity

premium scale for Frequency which would apply a \$12.5 million to \$20.0 million

s level of net cash. However, this premium, depending on Frequency 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

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.

David Lucchino

FirstName LastNameDavid

Frequency Therapeutics, Inc.Lucchino

Comapany

August 23, NameFrequency

2023 Therapeutics, Inc.

August

Page 5 23, 2023 Page 5

FirstName LastName

Certain Unaudited Financial Projections for Korro Bio, page 176

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

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.

David Lucchino

Frequency Therapeutics, Inc.

August 23, 2023

Page 6

Fit-for-purpose delivery, page 292

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

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

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

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
FirstName LastNameDavid Lucchino
Comapany
35. NameFrequency
Please Therapeutics,
file the offer letter Inc. and the employment agreement with Mr.

AugustAgarwal

FirstName LastName

23, 2023asPage

exhibits

6 to your registration statement.

with Dr. Aiyar

David Lucchino
FirstName LastNameDavid
Frequency Therapeutics, Inc.Lucchino
Comapany
August 23, NameFrequency

2023 August

Page 7 23, 2023 Page 7 FirstName LastName

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

Therapeutics, Inc.

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.