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

DIVISION OF
CORPORATION FINANCE

March 1, 2022

Vlad Vitoc, M.D., M.B.A.
Chief Executive Officer
MAIA Biotechnology, Inc.
4444 West Lake Street, Suite 1700
Chicago, IL 60606

Re: MAIA Biotechnology, Inc.
Amendment No. 2 to Draft Registration Statement on Form S-1
Submitted February 14, 2022
CIK No. 0001878313

Dear Dr. Vitoc:

We have reviewed your amended draft 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 providing the requested information and either submitting an amended draft registration statement or publicly filing your registration statement on EDGAR. 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 the information you provide in response to these comments and your amended draft registration statement or filed registration statement, we may have additional comments.

Amendment No. 2 to Draft Registration Statement on Form S-1 submitted February 14, 2022

Cover Page

1. We reissue our prior comment 1. Please revise to remove the pipeline table graphic from appearing before the prospectus summary as the prominence of this graphic is not appropriate. Further, please revise your statement on page 2 that you "take added confidence in the potential safety of THIO..." to remove the implication that THIO is safe, as determinations of safety are within the sole authority of the FDA and comparable foreign regulators. We will not object to statements indicating you have added confidence in the "potential tolerability" of THIO.

Prospectus Summary, page 2

2. We note your statements throughout the prospectus that "Even if [you] are granted an accelerated approval pathway, that may or may not lead to a faster development or regulatory review or approval process and may or may not increase the likelihood that THIO will receive marketing approval." Please revise to affirmatively state that the FDA's accelerated approval pathways do not guarantee an accelerated review or marketing approval by the FDA.

Our Pipeline, page 4

3. We note your revisions in response to our prior comment 3 and reissue. Your disclosure indicates that you have not yet started a Phase 2 trial for THIO-101, THIO-102, or THIO-103, but the arrows for each candidate extend into the Phase 2 column. Progress arrows should clearly depict the progress of each candidate to date and should not encroach on phases not commenced. Please shorten the arrows in the pipeline chart to match the current status of each trial as described in the Business section. Please remove from the graphic the rows corresponding to your second generation telomere targeting agents as these programs does not appear currently material. Alternatively, please provide us your analysis as to why these programs are sufficiently material to warrant inclusion in your pipeline table.

Business
Current Landscape of the Checkpoint Inhibitor Franchises, page 78

4. We note your revisions in response to our prior comment 7 and reissue in part. Please clarify the significance of the years under the indication columns in the table on page 78 so that investors have the appropriate context to evaluate your disclosure.

THIO: A Telomere Targeting Agent, page 85

5. We note your response to our prior comment 2, which we reissue. You continue to make statements in your prospectus that imply THIO's efficacy, such as "THIO has demonstrated high activity..." and "The below graphic... demonstrates in vivo anticancer activity of THIO." You may present objective data from clinical trials but may not state or imply that the data establishes or demonstrates efficacy. Accordingly, please revise your disclosure to remove any implication that THIO's efficacy is established. Additionally, revise to explain what you mean by “conditional approval on page 75.

THIO Program, page 94

6. We note your response to comment 11, which we reissue in part. You state in your response letter that you supplemented your disclosure to explain that milestone payments under the license agreement only exist with respect to commercial sales milestones as well as the maximum dollar amount of the milestone payments. However, you refer on page 96

and 98 to aggregate milestone payments that do not exceed "low nine-figure fees." Please revise to disclose the dollar amount of total potential aggregate milestone payments under the license agreements.

You may contact Eric Attalah at 202-551-3663 or Mary Mast at 202-551-3613 if you have questions regarding comments on the financial statements and related matters. Please contact Jordan Nimitz at 202-551-6001 or Christine Westbrook at 202-551-5019 with any other questions.

Sincerely,

Division of Corporation Finance
Office of Life Sciences

cc: Mitchell S. Nussbaum, Esq.