January 13, 2022 Harith Rajagopalan, M.D., Ph.D. Chief Executive Officer Fractyl Health, Inc. 17 Hartwell Avenue Lexington, MA 02421 Re: Fractyl Health, Amendment No. 2 to Draft Registration Statement on Form S-1 Submitted January 12, 2022 CIK 0001572616 Dear Dr. Rajagopalan: We have reviewed your amended draft registration statement and have the following comment. In our comment, 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 comment applies 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 this comment 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 Prospectus Summary Our Solution: Revita, page 2 We note your response to prior comment 1 and revised disclosure, including your discussion of the results of the follow-up studies of the PP populations in your Revita-1

feasibility and INSPIRE pilot studies. Please revise here and throughout the prospectus, as appropriate, to disclose (i) the number of patients who participated in the follow-up studies and (ii) whether the findings of improvements in glucose control through 24 months in the Revita-1 follow-up and reduced need for insulin through 18 months in the INSPIRE follow-up were statistically significant. Harith Rajagopalan, M.D., Ph.D. Fractyl Health, Inc. January 13, 2022 Page 2 You may contact Michael Fay at 202-551-3812 or Daniel Gordon at 202-551-3486 if you have questions regarding comments on the financial statements and related matters. Please contact Alan Campbell at 202-551-4224 or Joe McCann at 202-551-6262 with any

```
other
questions.
```

1

Inc.

Division of Corporation

Finance Comapany NameFractyl Health, Inc.

January 13, 2022 Page 2 cc: Nathan Ajiashvili FirstName LastName Office of Life Sciences