LATHAM&WATKINSLLP

January 29, 2024

VIA EDGAR

Division of Corporation Finance Office of Life Sciences U.S. Securities and Exchange Commission 100 F Street, N.E. Washington, DC 20549-6010

Attention: Tyler Howes

Alan Campbell Michael Fay Brian Cascio

Re: Fractyl Health, Inc.

Registration Statement on Form S-1

Filed December 14, 2023 File No. 333-276046

To the addressees set forth above:

On behalf of our client, Fractyl Health, Inc. (the "Company"), set forth below is the Company's response to the comment of the Staff (the "Staff") of the Division of Corporation Finance of the Securities and Exchange Commission (the "Commission") in its letter dated December 20, 2023, relating to the Company's registration statement on Form S-1 filed on December 14, 2023 (the "Registration Statement").

The Company has filed today Amendment No. 1 to the Registration Statement ("Amendment No. 1"), together with this letter, via EDGAR submission. For convenience of reference, the text of the comment in the Staff's letter has been reproduced in bold and italics herein. The Company has also provided its response immediately after the comment. Capitalized terms used but not otherwise defined herein have the meanings assigned to such terms in Amendment No. 1.

1271 Avenue of the Americas New York, New York 10020-1401

Tel: +1.212.906.1200 Fax: +1.212.751.4864

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Registration Statement on Form S-1

Prospectus Summary

Overview, page 1

1. Please revise to provide the source for your statement that up to two-thirds of patients discontinue weekly GLP-1RA therapy within the first year. In your revisions, please disclose the drugs that were discontinued and the dates covered by the study or studies showing the discontinuation.

Response: In response to the Staff's comment, the Company has revised the disclosure on pages 1, 101, 122 and 130 of Amendment No. 1.

We hope that the foregoing has been responsive to the Staff's comment and look forward to resolving any outstanding issues as quickly as possible. Please do not hesitate to contact me at (212) 906-2916 with any questions or further comments you may have regarding this filing or if you wish to discuss the above.

Sincerely,

/s/ Nathan Ajiashvili

Nathan Ajiashvili of LATHAM & WATKINS LLP

Enclosures cc: (via e-mail)

Harith Rajagopalan, M.D., Ph.D., Chief Executive Officer, Fractyl Health, Inc. Johan Brigham, Latham & Watkins LLP Evan Smith, Latham & Watkins LLP Jonathan Sarna, Latham & Watkins LLP Edwin O'Connor, Goodwin Procter LLP Alicia Tschirhart, Goodwin Procter LLP