

COGENT BIOSCIENCES, INC.
200 Cambridge Park Drive, Suite 2500
Cambridge, MA 02140

VIA EDGAR

May 20, 2022

United States Securities and Exchange Commission
Division of Corporation Finance
Office of Life Sciences
100 F Street, N.E.
Washington, D.C. 20549

Re: Cogent Biosciences, Inc.
Registration Statement on Form S-3 (File No. 333-264773)

To Whom it May Concern:

Pursuant to Rule 461 under the Securities Act of 1933, as amended (the "Act"), Cogent Biosciences, Inc. (the "Company") hereby requests that the effective date of the above-referenced registration statement (the "Registration Statement") be accelerated to May 24, 2022, at 4:00 p.m., Eastern Time, or as soon thereafter as practicable, unless we or our outside counsel, Gibson, Dunn & Crutcher LLP, request by telephone that such Registration Statement be declared effective at some other time. In making this acceleration request, the Company acknowledges that it is aware of its obligations under the Act.

Once the Registration Statement is effective, please orally confirm the event with our counsel, Gibson, Dunn & Crutcher LLP by calling Ryan A. Murr at (415) 393-8373.

Sincerely,

COGENT BIOSCIENCES, INC.

/s/ John Green

John Green

Chief Financial Officer

cc: Ryan A. Murr, Gibson, Dunn & Crutcher LLP
Branden C. Berns, Gibson, Dunn & Crutcher LLP