

VOR BIOPHARMA INC.
100 Cambridgepark Drive, Suite 101
Cambridge, MA 02140

December 16, 2022

Via EDGAR

U.S. Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Washington, D.C. 20549

Attn: Jason Drory

Re: **Vor Biopharma Inc.**
Registration Statement on Form S-3 (File No. 333-268798)
Request for Acceleration of Effective Date

Acceleration Request

Requested Date: December 20, 2022

Requested Time: 4:00 p.m. Eastern Time

Ladies and Gentlemen:

In accordance with Rule 461 under the Securities Act of 1933, as amended, the undersigned registrant (the "**Registrant**") hereby requests that the Securities and Exchange Commission take appropriate action to cause the above-referenced Registration Statement on Form S-3 (File No. 333-268798) (the "**Registration Statement**") to become effective on December 20, 2022, at 4:00 p.m. Eastern Time, or as soon thereafter as is practicable.

Once the Registration Statement has been declared effective, please orally confirm that event with Divakar Gupta of Cooley LLP, counsel to the Registrant, at (212) 479-6474, or in his absence, Katie Kazem at (703) 456-8043.

[Signature page follows]

Very truly yours,

Vor Biopharma Inc.

By: /s/ Robert Ang

Robert Ang
Chief Executive Officer and Director

cc:

Robert Ang, Vor Biopharma Inc.
Nathan Jorgensen, Vor Biopharma Inc.
Divakar Gupta, Cooley LLP
Katie Kazem, Cooley LLP

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