December 15, 2022 Robert Ang, M.B.B.S. President and Chief Executive Officer Vor Biopharma Inc. 100 Cambridgepark Drive, Suite 101 Cambridge, MA 02140 Re: Vor Biopharma Inc. Registration Statement on Form S-3 Filed December 14, 2022 File No. 333-268798 Dear Robert Ang: This is to advise you that we have not reviewed and will not review your registration statement. Please refer to Rules 460 and 461 regarding requests for acceleration. We remind you that the company and its management are responsible for the accuracy and adequacy of their disclosures, notwithstanding any review, comments, action or absence of action by the staff. Please contact Jason Drory at 202-551-8342 with any questions.

Sincerely,

Division of Corporation Finance

Office of Life Sciences

cc:

Divakar Gupta