

November 30, 2021

Ivana Magovevi-Liebisch, PhD, JD
Chief Executive Officer
Vigil Neuroscience, Inc.
1 Broadway, 7th Floor, Suite 07-300
Cambridge, MA 02142

Re: Vigil Neuroscience,
Registration
Filed November 19,
File No. 333-261230

Inc.
Statement on Form S-1
2021

Dear Dr. Magovevi-Liebisch:

We have reviewed your registration statement and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by amending your registration statement and providing the requested information. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments.

Registration Statement on Form S-1 filed November 19, 2021

Pipeline Table, page 3

1. We note your increased disclosure in response to prior comment 2. Please further expand your disclosure to explain how VGL101 for Alzheimer's Disease and the Small Molecule TREM2 Agonist program are two different products, instead of two different phases of the same product. For example, on page 131 you disclose that the purpose of the Phase 1b trial for VGL101 for Alzheimer's Disease is "to inform the target patient population and design for future larger studies that evaluate the safety and efficacy of our small molecule agonist." Please further clarify that VGL101 for Alzheimer's Disease is a different product from the Small Molecule TREM2 Agonist program or revise your pipeline table appropriately.

Ivana Magovevi-Liebisch, PhD, JD
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FirstName LastName
Our Corporate History and Team, page 4

2. We note your response to prior comment 4 and the related revised disclosure. As requested by our prior comment, please relocate this disclosure from your prospectus summary to your "Principal Stockholder" section and limit any textual description of pre-

IPO investors to the investors identified in the Principal
Stockholders table.

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.

Refer to Rules 460 and 461 regarding requests for acceleration. Please
allow adequate
time for us to review any amendment prior to the requested effective date of
the registration
statement.

You may contact Sasha Parikh at 202-551-3627 or Al Pavot at 202-551-3738
if you have
questions regarding comments on the financial statements and related matters.
Please contact
Tyler Howes at 202-551-3370 or Tim Buchmiller at 202-551-3635 with any other
questions.

Sincerely,

Division of

Office of Life

Corporation Finance

Sciences

cc: Kingsley L. Taft, Esq.