

January 3, 2022

**VIA EDGAR**

Al Pavot  
Tyler Howes  
Sasha Parikh  
Tim Buchmiller  
U.S. Securities and Exchange Commission  
Division of Corporation Finance  
100 F. Street, N.E.  
Washington, D.C. 20549

**Re: Vigil Neuroscience, Inc.  
Registration Statement on Form S-1  
Filed November 19, 2021  
File No. 333-261230**

Dear Mr. Howes:

This letter is being submitted on behalf of Vigil Neuroscience, Inc. (the “Company”) in response to the comments of the staff of the Division of Corporation Finance (the “Staff”) of the U.S. Securities and Exchange Commission (the “Commission”) with respect to the Company’s Registration Statement on Form S-1 publicly filed on November 19, 2021 (the “Registration Statement”), as set forth in your letter dated November 30, 2021 addressed to Dr. Magovčević-Liebisch, Chief Executive Officer of the Company (the “Comment Letter”).

For reference purposes, the text of the Comment Letter has been reproduced herein with responses below each numbered comment. For your convenience, we have italicized the reproduced Staff comments from the Comment Letter. Unless otherwise indicated, page references in the Staff’s comments refer to the Registration Statement, and page references in the responses refer to the Company’s Amendment No. 1 to the Registration Statement on Form S-1 that is filed with the Commission on January 3, 2022 (the “Amended Registration Statement”).

The responses provided herein are based upon information provided to Goodwin Procter LLP by the Company.

**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.*

RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure on page 132 of the Registration Statement to further clarify that VGL101 for Alzheimer's Disease is a different product from the Small Molecule TREM2 Agonist program.

**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.*

RESPONSE: The Company respectfully advises the Staff that it has removed the existing disclosure from page 4 and page 70 of the Registration Statement and further revised the disclosure on page 109 of the Registration Statement in response to the Staff's comment.

Sincerely,

/s/ Gabriela Morales-Rivera

Gabriela Morales-Rivera

cc: Ivana Magovčević-Liebisch, *Vigil Neuroscience, Inc.*  
Jennifer Ziolkowski, *Vigil Neuroscience, Inc.*  
Kingsley L. Taft, *Goodwin Procter LLP*  
Jacqueline Mercier, *Goodwin Procter LLP*