UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

DIVISION OF
CORPORATION FINANCE

May 13, 2024

Troy Ignelzi
Chief Financial Officer
Rapport Therapeutics, Inc.
1325 Boylston Street, Suite 401
Boston, MA 02215

Re: Rapport Therapeutics, Inc.
Amendment No. 1 to Draft Registration Statement on Form S-1
Submitted April 29, 2024
CIK No. 0002012593

Dear Troy Ignelzi:

We have reviewed your amended draft registration statement and have the following comments.

Please respond to this letter by providing the requested information and either submitting an amended draft registration statement or publicly filing your registration statement on EDGAR. If you do not believe a comment applies to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing the information you provide in response to this letter and your amended draft registration statement or filed registration statement, we may have additional comments. Unless we note otherwise, any references to prior comments are to comments in our April 24, 2024 letter.

Amendment No. 1 to Draft Registration Statement submitted April 29, 2024

Introduction to RAP-219, page 4

1. We note your revised disclosure on page 5 and elsewhere in response to prior comment 1. With reference to the second full sentence on page 5, and with a view to clarified disclosure, please tell us whether there is preclinical data demonstrating that RAP-219 has minimal or no expression in the cerebellum, brainstem and other brain areas that are critical for normal brain functions. In this regard, we note that the preclinical study presented on page 121 appears to have been conducted using a molecule that is not RAP-219.

RAP-219 Preclinical Studies, page 121

2. We note your revised disclosure in response to prior comment 7. Please revise to explain whether these other TARPy8 NAMS are third-party molecules or proprietary ones and why preclinical testing was conducted on these molecules and not on RAP-219. To the extent that any of the preclinical data presented relates to RAP-482, please identify the preclinical study and revise the disclosure on page 19 to discuss the reason(s) why RAP-482 received a full clinical hold from the FDA.

Please contact Jenn Do at 202-551-3743 or Daniel Gordon at 202-551-3486 if you have questions regarding comments on the financial statements and related matters. Please contact Tamika Sheppard at 202-551-8346 or Joe McCann at 202-551-6262 with any other questions.

Sincerely,

Division of Corporation Finance
Office of Life Sciences

cc: Justin Platt