

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

July 30, 2025

Lee Kalowski CFO and President Q32 Bio Inc. 830 Winter Street Waltham, MA 02451

Re: Q32 Bio Inc.

Form 10-K for the year ended December 31, 2024 Filed March 11, 2025

File No. 001-38433

Dear Lee Kalowski:

We have limited our review of your filing to the financial statements and related disclosures and have the following comment(s).

Please respond to this letter within ten business days by providing the requested information or advise us as soon as possible when you will respond. If you do not believe a comment applies to your facts and circumstances, please tell us why in your response.

After reviewing your response to this letter, we may have additional comments.

Form 10-K for the year ended December 31, 2024

Notes to consolidated financial statements

15. Agreements with Horizon, page F-31

- 1. Please tell us and revise your disclosure in future filings to address the following:
 - breakout the \$75.1 million contingent consideration between regulatory and sales milestones;
 - provide a summary of the regulatory milestones and the related consideration that needs to be achieved:
 - disclose the extent to which you are required to repay Horizon the \$55 million received under your prior agreements with Horizon or any of the additional \$20 million if bempikibart does not meet any of the milestones; and
 - tell us your expected accounting for the liability if bempikibart does not achieve any of the milestones and if no payments are required.

In closing, we remind you that the company and its management are responsible for

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the accuracy and adequacy of their disclosures, notwithstanding any review, comments, action or absence of action by the staff.

Please contact Sasha Parikh at 202-551-3627 or Kevin Vaughn at 202-551-3494 with any questions.

Sincerely,

Division of Corporation Finance Office of Life Sciences