

October 2, 2024

Josh Mandel-Brehm  
Chief Executive Officer  
CAMP4 Therapeutics Corp  
One Kendall Square  
Building 1400 West, 3rd Floor  
Cambridge, MA 02139

Re: CAMP4 Therapeutics Corp  
Amendment No. 1 to Registration Statement on Form S-1  
Filed September 26, 2024  
File No. 333-282241

Dear Josh Mandel-Brehm:

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

Please respond to this letter by amending your registration statement and providing the requested information. 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 any amendment to your registration statement and the information you provide in response to this letter, we may have additional comments.

Registration Statement on Form S-1  
Prospectus Summary  
CMP-CPS-001: Potential treatment for urea cycle disorders, page 5

1. We note your disclosure on pages 5 and 130 that as of September 2024, the Safety Review Committee of your Phase 1 clinical trial of CMP-CPS-001 has reviewed all reported interim safety data, including treatment emergent adverse events from SAD cohorts 1 through 3, and that to date, "no safety trends of concern have been observed, and CMP-CPS-001 has been well tolerated." Please tell us whether any treatment related serious adverse events ("SAEs") occurred in your clinical trial, and if so, describe each SAE and quantify the number of occurrences. Alternatively, if true, affirmatively state that no SAEs occurred.

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Please contact Gary Newberry at 202-551-3761 or Mary Mast at 202-551-3613 if you have questions regarding comments on the financial statements and related matters. Please contact Lauren Hamill at 303-844-1008 or Joe McCann at 202-551-6262 with any other questions.

Sincerely,

Division of

Office of Life

Corporation Finance

Sciences

cc: Thomas Danielski