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June 26, 2024

VIA EDGAR

U.S. Securities and Exchange Commission
Division of Corporation Finance, Office of Life Sciences
100 F Street, N.E. Washington, D.C. 20549
Attention: Tyler Howes and Chris Edwards

Re: Zenas BioPharma, Inc.
Amendment No. 2 to Draft Registration Statement on Form S-1
Submitted June 14, 2024
CIK No. 0001953926

Ladies and Gentlemen:

On behalf of Zenas BioPharma, Inc. (the "Company"), we hereby confidentially submit to the U.S. Securities and Exchange Commission (the "Commission"), via EDGAR, Amendment No. 3 ("Amendment No. 3") to the above-referenced draft registration statement (the "Draft Registration Statement"). Amendment No. 3 reflects revisions to the Draft Registration Statement made in response to the comment letter from the staff of the Division of Corporation Finance (the "Staff") of the Commission dated June 18, 2024 regarding the Draft Registration Statement, as well as certain other updated information. Marked copies showing changes from Amendment No. 2 to the Draft Registration Statement confidentially submitted on June 14, 2024 are being furnished supplementally for the convenience of the Staff.

In addition, we are providing the following response to the Staff's comment. To assist your review, we have presented the text of the Staff's comment in italics below and the Company's response set forth in this letter is numbered to correspond to the numbered comment from the Staff's letter. The response and information described below is based upon information provided to us by the Company and all terms used but not defined herein have the meanings assigned to such terms in Amendment No. 3.

June 26, 2024

Amendment No. 2 to Draft Registration Statement on Form S-1

Prospectus Summary
Our Obexelimab Program, page 2

1. *We note your response to prior comment 1. We also note that disclosure in this section continues to state obexelimab was well tolerated in five completed clinical trials including trials that used intravenous infusion for the delivery of your product candidate. Please balance this statement by clarifying that you have observed serious adverse events in trials of obexelimab administered through intravenous infusion.*

Response to Comment 1: In response to the Staff's comment, the Company has revised the disclosure on page 3 of Amendment No. 3.

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Please do not hesitate to call me at (617) 235-4961 or Nicholas Roper at (617) 951-7116 with any questions or further comments you may have regarding this filing or if you wish to discuss the above responses.

Sincerely,

/s/ Thomas J. Danielski

cc. Leon O. Moulder, Jr. (Zenas BioPharma, Inc.)
cc. Joseph Farmer (Zenas BioPharma, Inc.)
cc. Nicholas Roper (Ropes & Gray LLP)
cc. Richard Segal (Cooley LLP)
cc. Denny Won (Cooley LLP)