

Dykema Gossett PLLC

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VIA EDGAR

July 27, 2022

U.S. Securities and Exchange Commission Division of Corporate Finance Office of Trade & Services 100 F Street, N.E. Washington, D.C. 20549

Attention: Taylor Beech and Lilyanna Peyser

Re: bioAffinity Technologies, Inc.

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

Filed June 16, 2022 File No. 333-264463

Dear Ms. Beech and Ms. Peyser:

This response letter (this "Response") is submitted on behalf of bioAffinity Technologies, Inc. (the "Company") in response to the comments that the Company received from the staff of the Division of Corporation Finance (the "Staff") of the U.S. Securities and Exchange Commission (the "SEC") in a letter addressed to Ms. Maria Zannes, dated July 11, 2022 (the "Comment Letter"), with respect to the Company's amended registration statement on Form S-1/A, filed with the SEC on June 16, 2022 (the "Registration Statement"). The Company is concurrently submitting an amendment to the Registration Statement (the "Amendment No. 3"), which reflects the changes discussed as part of the Company's responses to the Staff's comments in this Response and other updates.

For reference purposes, the Company's responses are included below each of the Staff's bolded numbered comments, the text of which have been reproduced from the Comment Letter. All capitalized terms used but not defined in this Response have the meanings ascribed to them in the Amendment No. 3.

The responses below are based on information provided to Dykema Gossett PLLC by the Company.

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Amendment No.2 to Registration Statement on Form S-1 Filed June 16, 2022

Report of Independent Registered Public Accounting Firm, page F-18

1. We note you have included conditional audit reports pending the completion of the planned reverse stock split. Please confirm that you intend to file a preeffective amendment to your Form S-1 that includes final signed audit reports and signed auditors' consents prior to requesting effectiveness.

RESPONSE: The reverse stock split became effective with the State of Delaware on June 23, 2022. Accordingly, the Amendment No. 3 includes final signed audit reports on pages F-18 and F-19 and signed auditors' consents attached as Exhibits 23.2 and 23.3, which reflect the effectiveness of the reverse stock split.

Exhibits

Exhibit 5.1

2. Please revise your legal opinion to clarify that you are opining on all of the common stock covered by the registration statement, as it currently suggests that you are opining only on the shares of common stock underlying warrants. In addition, please opine on the Units covered by the registration statement. Refer to Sections II.B.1.f and II.B.1.h of Staff Legal Bulletin No. 19.

RESPONSE: Dykema Gossett PLLC has revised our legal opinion to opine on all of the common stock as well as the Units covered by the Registration Statement in accordance with the SEC's comment and Sections II.B.1.f and II.B.1.h of Staff Legal Bulletin No. 19. Our revised legal opinion is attached as Exhibit 5.1 to the Amendment No. 3.

* * *

In addition to the changes referred to above, I note that the Company has made additional changes in Amendment No. 3 to (i) reduce the size of the offering, (ii) to decrease the assumed purchase price of the units in the offering, and (iii) to expand the warrant coverage in the offering to include a non-tradeable warrant as part of the units. These additional changes were made in light of current market conditions.

Thank you for your review and consideration of the matters set forth in this Response and in the Amendment No. 3. If you have any questions, please contact the undersigned at (210) 554-5414 or wliebmann@dykema.com.

Dykema Gossett PLLC

/s/ Wilhelm E. Liebmann

Wilhelm E. Liebmann, Esq.

cc: Maria Zannes Chief Executive Officer bioAffinity Technologies, Inc.

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