

August 2, 2017

Via EDGAR

Mary Beth Breslin Legal Branch Chief Office of Healthcare & Insurance United States Securities and Exchange Commission Division of Corporation Finance 100 F Street, N.E. Washington, D.C. 20549-3561

Irene Paik
Attorney Advisor
Office of Healthcare & Insurance
United States Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Washington, D.C. 20549-3561

Re: Cellectar Biosciences, Inc.

Preliminary Proxy Statement on Schedule 14A

Filed July 26, 2017 File No. 001-36598

Ladies and Gentlemen:

Set forth below is the response of Cellectar Biosciences, Inc. (the "Company", "we," "us" or "our") to the comment received from the staff of the Division of Corporation Finance (the "Staff") of the Securities and Exchange Commission (the "Commission") by letter dated July 31, 2017, with respect to the Company's Preliminary Proxy Statement on Schedule 14A, filed with the Commission on July 26, 2017, File No. 001-36598 ("PRE 14A"). For your convenience, the response is prefaced by the exact text of the Staff's corresponding comment in bold, italicized text. In addition to the response below, we have filed today a revised version of the Preliminary Proxy Statement on Schedule 14A (the "Revised PRE 14A") to address the Staff's comment. All references to page numbers and captions correspond to the PRE 14A unless otherwise specified.

Preliminary Proxy Statement on Schedule 14A filed July 26, 2017

General

1. We note your disclosure that you filed a Certificate of Amendment with the Delaware Secretary of State following the 2017 Annual Meeting increasing the number of authorized shares of common stock. We also note your disclosure that if the Special Meeting Proposal does not receive the requisite vote to ratify the approval of the Amendment, the Board will consider "whether to implement a plan to conserve shares and assess any further actions that may be appropriate." Please expand your disclosure to clarify the legal consequence of the vote in the event that you do not receive the requisite vote to ratify the approval of the Amendment. For instance, state whether you will revert to having 40,000,000 shares of authorized common stock.

Cellectar Biosciences, Inc. 3301 Agriculture Drive, Madison, WI 53716 T(608) 441-8120



<u>RESPONSE</u>: We acknowledge the Staff's comment and have set forth below revised disclosure the Company has added to the PRE 14A to further address the legal consequence of the vote in the event that the Special Meeting Proposal does not receive the requisite vote to ratify the approval of the Amendment. Added disclosure is denoted by underline; deleted disclosure is denoted by strikethrough.

"If the Special Meeting Proposal receives the requisite vote to ratify the approval of the Amendment, our Board of Directors will consider the Amendment duly adopted, the Certificate of Amendment filed with the Delaware Secretary of State will remain effective and the Board of Directors will file a certificate of validation with the Delaware Secretary of State. If the Special Meeting Proposal does not receive the requisite vote to ratify the approval of the Amendment, the Company may be required to take immediate additional steps to obtain authorization of additional shares. In addition, if the Special Meeting Proposal does not receive the requisite vote to ratify the approval of the Amendment, our Board of Directors will consider whether to expects to, out of an abundance of caution, implement a plan to conserve shares and revert to 40,000,000 shares of authorized common stock including, to the extent our Board of Directors deems necessary, the filing of a certificate of correction with the Delaware Secretary of State. This outcome assess any further actions that may be appropriate, which could significantly limit the Company's ability to execute necessary research and development activities, including its pre-clinical programs as well as current and planned clinical trials, or to pursue attractive corporate opportunities, including financings and acquisitions, and the Board of Directors' ability to provide certain employees with competitive compensation other strategic corporate development actions. Our Board of Directors does not believe this outcome would be in the Company's or stockholders' best interest. Moreover, given the significant limitations this outcome would impose on the Company and its future prospects, the Board of Directors may take additional steps to obtain authorization of additional shares beyond the 40,000,000 shares originally authorized, including, but not limited to, resubmitting to the Company's stockholders an amendment to our Certificate of Incorporation to increase the authorized shares of common stock by 40,000,000 shares, or a greater or lesser amount, at the 2018 Annual Meeting of Stockholders, or at such other time our Board deems necessary and appropriate."

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Please direct any questions that you have with respect to the foregoing or if any additional supplemental information is required by the Staff, please contact Sarah Fortt of Vinson & Elkins LLP at (512) 542-8438 or sfortt@velaw.com.

Very truly yours,

CELLECTAR BIOSCIENCES, INC.

By: /s/ Chad Kolean
Name: Chad Kolean

Title: Vice President and Chief Financial Officer

Sarah Fortt, Vinson & Elkins LLP Gregory Lynch, Michael Best & Friedrich LLP

cc: