Via EDGAR

March 21, 2016

United States Securities and Exchange Commission Division of Corporation Finance Washington, D.C. 20549

Attn: Mr. Scot Foley

Ms. Mary Beth Breslin Ms. Suzanne Hayes

Re: Cellectar Biosciences, Inc.

Registration Statement on Form S-1

Filed December 18, 2015 File Number 333-208638

Ladies and Gentlemen:

This letter constitutes supplemental correspondence on behalf of Cellectar Biosciences, Inc., a Delaware corporation (the "Company"), related to the above-referenced filing (the "Registration Statement"), and is submitted with the Company's Amendment No. 1 to the Registration Statement ("Amendment No. 1").

Responding to the comments of the Staff on the Registration Statement, contained in your letter of January 12, 2016 (the "Comment Letter"), Amendment No. 1 (i) includes adjusted numbers of shares throughout the Registration Statement to reflect a 1-for-10 reverse split of the Company's common stock, effective as of the close of business on March 4, 2016 (the "Reverse Split"), (ii) updates the disclosure to reflect business developments since the date of the Registration Statement, (iii) updates the disclosure to reflect the Company's audited financial statements for the year ended December 31, 2015, and (iv) includes as an exhibit the legal opinion of Foley Hoag LLP.

As a courtesy, we are separately providing by Federal Express a blackline document comparing Amendment No.1 to the Registration Statement.

Set forth below are the Company's responses to the Comment Letter. For your convenience, we have repeated the Staff's comments below in bold face type. Except as otherwise indicated, all statements contained herein concerning factual matters relating to the Company are based on information provided to us by the Company.

1. We note that you intend to offer an as-yet-undetermined number of shares of common stock. We further note that, pursuant to the definitive proxy statement on Schedule 14A you filed on January 7, 2016, you intend to hold a special meeting of stockholders on February 8, 2016 to enable you to effect a reverse stock split that will ensure you have a sufficient number of authorized but unissued shares to complete this offering. Please confirm that you will not request acceleration of the effective date of your registration statement until you have obtained shareholder approval of and subsequently undertaken a reverse stock split such that you will have sufficient authorized shares to conduct the offering.

As discussed in communications between Scot Foley and Paul Bork, the Company was waiting to request acceleration of the effective date of the Registration Statement until (i) stockholder approval of the Reverse Split was obtained and the Reverse Split was effected and (ii) audited year-end financial statements became available. All share and per share amounts included in Amendment No. 1 (and the Company's Form 10-K for the year ended December 31, 2015) have been adjusted to give effect to the Reverse Split.

2. We note that you intend to file your opinion of counsel (exhibit 5.1) by amendment. Please confirm that you will file this opinion prior to requesting acceleration of the effective date of your registration statement.

Amendment No. 1 includes as an exhibit the legal opinion of Foley Hoag LLP.

The Company plans to file the form of underwriting agreement for the offering and forms of warrants as exhibits to a subsequent amendment. The Company anticipates requesting acceleration of the effective date of the Registration Statement later in March 2016, and will be in contact with the Staff regarding acceleration requests as its plans become definitive.

Should the Staff have any additional comments or questions, please direct such to me at (617) 832-1113 or in my absence to Daniel Clevenger at (617) 832-1283.

Very truly yours,

/s/ Paul Bork

Paul Bork

cc: Mr. James Caruso (Cellectar)