CELLECTAR BIOSCIENCES, INC. 3301 Agriculture Drive Madison, WI 53716

September 18, 2017

VIA EDGAR

Securities and Exchange Commission Division of Corporation Finance 100 F Street, N.E. Washington, D.C. 20549 Attention: Christine Westbrook

Re: Cellectar Biosciences, Inc.

Registration Statement on Form S-3

File No. 333-218514

Ladies and Gentlemen:

Pursuant to Rule 461(a) under the Securities Act of 1933, as amended, Cellectar Biosciences, Inc., a Delaware corporation (the "Company"), hereby requests that the effective date of the Company's Registration Statement on Form S-3 (Registration No. 333-218514), as amended, be accelerated so that the Registration Statement will become effective at 4:00 p.m. on September 20, 2017, or as soon as practicable thereafter.

The cooperation of the staff in meeting our request is very much appreciated. If you have any questions or comments, please contact Gregory J. Lynch of Michael Best & Friedrich LLP at (608) 283-2240 or gjlynch@michaelbest.com. Thank you for your assistance with these matters.

Very truly yours,

CELLECTAR BIOSCIENCES, INC.

By: /s/ James V. Caruso

James V. Caruso, President and Chief Executive Officer

cc: John P. Hamill Gregory J. Lynch