

CELLECTAR BIOSCIENCES, INC.

3301 Agriculture Drive
Madison, WI 53716

August 13, 2014

Via EDGAR

Securities and Exchange Commission
100 F Street, N.E.
Washington, D.C. 20549
Attention: Jeffrey P. Riedler

Re: Cellectar Biosciences, Inc.
Registration Statement on Form S-1,
File No. 333-196091

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-1 (Registration No. 333-196091), as amended, be accelerated so that the Registration Statement will become effective at 5:00 p.m. on August 14, 2014, or as soon as practicable thereafter.

The Company hereby acknowledges that:

- (a) should the Commission or the staff, acting pursuant to delegated authority, declare the Registration Statement effective, it does not foreclose the Commission from taking any other action with respect to the filing;
- (b) the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the Company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- (c) the Company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Very truly yours,

CELLECTAR BIOSCIENCES, INC.

By: /s/ Simon Pedder

Simon Pedder, President and Chief Executive Officer
