

CELLECTAR BIOSCIENCES, INC.
100 Campus Drive
Florham Park, New Jersey 07932

Investor Address Line 1
Investor Address Line 2
Investor Address Line 3
Investor Address Line 4
Investor Address Line 5
John Sample
1234 ANYWHERE STREET
ANY CITY, ON A1A 1A1

1 OF 2
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VOTE BY INTERNET - www.proxyvote.com

Use the Internet to transmit your voting instructions and for electronic delivery of information up until 11:59 p.m. Eastern Time the day before the cut-off date or meeting date. Have your proxy card in hand when you access the web site and follow the instructions to obtain your records and to create an electronic voting instruction form.

ELECTRONIC DELIVERY OF FUTURE PROXY MATERIALS

If you would like to reduce the costs incurred by our company in mailing proxy materials, you can consent to receiving all future proxy statements, proxy cards and annual reports electronically via e-mail or the Internet. To sign up for electronic delivery, please follow the instructions above to vote using the Internet and, when prompted, indicate that you agree to receive or access proxy materials electronically in future years.

VOTE BY PHONE - 1-800-690-6903

Use any touch-tone telephone to transmit your voting instructions up until 11:59 p.m. Eastern Time the day before the cut-off date or meeting date. Have your proxy card in hand when you call and then follow the instructions.

VOTE BY MAIL

Mark, sign and date your proxy card and return it in the postage-paid envelope we have provided or return it to Vote Processing, c/o Broadridge, 51 Mercedes Way, Edgewood, NY 11717.

CONTROL # → 0000000000000000

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PAGE 1 OF 2

TO VOTE, MARK BLOCKS BELOW IN BLUE OR BLACK INK AS FOLLOWS:

THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED.

KEEP THIS PORTION FOR YOUR RECORDS
DETACH AND RETURN THIS PORTION ONLY

The Board of Directors recommends you vote FOR the following:

For All Withhold All For All Except

To withhold authority to vote for any individual nominee(s), mark "For All Except" and write the number(s) of the nominee(s) on the line below.

1. Election of Class II Directors

Nominees

01 James V. Caruso 02 Frederick W. Driscoll

The Board of Directors recommends you vote FOR proposals 2, 3, 4 and 5.

For Against Abstain

- 2 To approve an increase in the number of shares of common stock available for issuance under our Amended and Restated 2015 Stock Incentive Plan by 700,000 shares;
- 3 To approve on a non-binding advisory basis the compensation of our named executive officers;
- 4 To ratify the appointment of Baker Tilly Virchow Krause, LLP as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2019; and
- 5 To transact such other business as may properly come before the Annual Meeting and at any adjournments or postponements of the Annual Meeting in accordance with our by-laws.

NOTE: The undersigned acknowledges receipt from the Company before the execution of this proxy of the Notice of Annual Meeting of Stockholders and a Proxy Statement for the Annual Meeting of Stockholders.

For address change/comments, mark here. (see reverse for instructions)

Yes No

Please indicate if you plan to attend this meeting

HOUSEHOLDING ELECTION - Please indicate if you consent to receive certain future investor communications in a single package per household

Please sign exactly as your name(s) appear(s) hereon. When signing as attorney, executor, administrator, or other fiduciary, please give full title as such. Joint owners should each sign personally. All holders must sign. If a corporation or partnership, please sign in full corporate or partnership name, by authorized officer.

Signature [PLEASE SIGN WITHIN BOX] Date

JOB #

Signature (Joint Owners) Date

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Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting:

The Notice & Proxy Statement and Form 10-K are available at www.proxyvote.com

**CELLECTAR BIOSCIENCES, INC.
Annual Meeting of Stockholders
June 13, 2019 10:00 AM, EDT
This proxy is solicited by the Board of Directors**

The undersigned hereby appoints James Caruso, Charles Bernhardt and Gregory Lynch, and each of them, as proxies, each with the power to appoint his substitute, and hereby authorizes them to represent and to vote, as designated on the reverse side of this ballot, all of the shares of Common Stock of Collectar Biosciences, Inc. that the undersigned is entitled to vote at the Annual Meeting of Stockholders to be held at 10:00 AM, EDT on June 13, 2019, at the Executive Conference Center on the First Floor at 100 Campus Drive, Florham Park, New Jersey 07932 and any adjournment or postponement thereof.

This proxy, when properly executed, will be voted in the manner directed herein. If no such direction is made, this proxy will be voted in accordance with the Board of Directors' recommendations.

Address change / comments:

(If you noted any Address Changes and/or Comments above, please mark corresponding box on the reverse side.)

Continued and to be signed on reverse side