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UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

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AMENDMENT NO. 1  
TO  
FORM S-3  
REGISTRATION STATEMENT  
UNDER  
THE SECURITIES ACT OF 1933

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**CELLECTAR BIOSCIENCES, INC.**

*(Exact name of registrant as specified in its charter)*

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**Delaware**  
*(State or other jurisdiction of  
incorporation or organization)*

**04-3321804**  
*(I.R.S. Employer  
Identification Number)*

**3301 Agriculture Drive  
Madison, WI 53716  
(608) 441-8120**  
*(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)*

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**James V. Caruso  
President and Chief Executive Officer  
3301 Agriculture Drive  
Madison, WI 53716  
(608) 441-8120**  
*(Name, address, including zip code, and telephone number, including area code, of agent for service)*

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**With a copy to:**

**Gregory J. Lynch, Esq.  
Michael Best & Friedrich LLP  
One South Pinckney Street, Suite 700  
Madison, Wisconsin 53703  
(608) 257-3501**

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*Approximate date of commencement of proposed sale to the public:* From time to time after the effective date of this Registration Statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See definition of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/> (Do not check if a smaller reporting company)	Smaller reporting company	<input checked="" type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for comply

with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of Securities Act.

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**CALCULATION OF REGISTRATION FEE**

<b>Title of Each Class of Securities to be Registered(1)</b>	<b>Amount to be Registered(1)</b>	<b>Proposed Maximum Offering Price Per Security(1)</b>	<b>Proposed Maximum Aggregate Offering Price(1)</b>	<b>Amount of Registration Fee(1)(4)</b>
Common Stock, par value \$0.0001 per share(2)	--	--	--	--
Preferred Stock, par value \$0.0001 per share(2)	--	--	--	--
Warrants	--	--	--	--
Units of the securities listed above	--	--	--	--
Subscription Rights(3)	--	--	--	--
<b>Total</b>			<b>\$ 50,000,000</b>	<b>\$ 5,795</b>

- (1) An indeterminate aggregate initial offering price or number of securities of each identified class is being registered as may from time to time be offered at indeterminate prices, with an aggregate initial offering price not to exceed \$50,000,000. Pursuant to Rule 416 under the Securities Act of 1933, as amended (the "Securities Act"), there is also being registered such indeterminate number of additional shares of common stock, preferred stock, warrants, units and subscription rights as may be issued to prevent dilution resulting from share dividends, split-up, reverse split-up or similar events. Separate consideration may or may not be received for securities that are issuable on exercise, conversion or exchange of other securities or that are issued in unit.
- (2) Includes an indeterminate number of shares of common stock or preferred stock as may be sold from time to time at indeterminate prices or as may be issued upon conversion or exchange of preferred stock, warrants, units or subscription rights registered hereby.
- (3) Rights evidencing the right to purchase common stock or preferred stock. Pursuant to Rule 457(g), no separate registration fee is payable with respect to the subscription rights being offered hereby since the subscription rights are being registered in the same registration statement as the securities to be offered pursuant thereto.
- (4) Filing fees of \$5,795 were previously paid in connection with Registrant's original Registration Statement filed with the Commission on June 5, 2017.

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**The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until the registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.**

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**EXPLANATORY NOTE**

The Registration Statement on Form S-3 is being amended solely to update the consent of Baker Tilly Virchow Krause, LLP, which is filed with this Amendment No. 1 as Exhibit 23.1.

**Part II**  
**Information Not Required in the Prospectus**

**Item 16. Exhibits**

See Exhibit Index following the signature page.

## SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on this Amendment No. 1 to Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Madison, State of Wisconsin, on September 15, 2017.

CELLECTAR BIOSCIENCES, INC.

By: /s/ James V. Caruso  
James V. Caruso  
President and Chief Executive Officer

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ James V. Caruso</u> James V. Caruso	Chief Executive Officer and Director ( <i>principal executive officer</i> )	September 15, 2017
<u>/s/ John P. Hamill</u> John P. Hamill	Interim Chief Financial Officer ( <i>principal financial officer and principal accounting officer</i> )	September 15, 2017
<u>/s/ *</u> Stephen A. Hill	Director	September 15, 2017
<u>/s/ *</u> Stefan Loren	Director	September 15, 2017
<u>/s/ *</u> John Neis	Director	September 15, 2017
<u>/s/ *</u> Frederick W. Driscoll	Director	September 15, 2017
<u>/s/ *</u> Douglas J. Swirsky	Director	September 15, 2017

\* Attorney-in-fact

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## EXHIBIT INDEX

Exhibit No.	Description	Incorporated by Reference		Exhibit No.
		Form	Filing Date	
1.1*	Form of Underwriting Agreement (to be filed by amendment or as an exhibit to a report pursuant to Section 13(a), 13(c) or 15(d) of the Exchange Act)			
<a href="#">3.1</a>	<a href="#">Second Amended and Restated Certificate of Incorporation</a>	<a href="#">8-K</a>	<a href="#">April 11, 2011</a>	<a href="#">3.1</a>
<a href="#">3.2</a>	<a href="#">Certificate of Ownership and Merger of Collectar Biosciences, Inc. with and into Novelos Therapeutics, Inc.</a>	<a href="#">8-K</a>	<a href="#">February 11, 2014</a>	<a href="#">3.1</a>
<a href="#">3.3</a>	<a href="#">Certificate of Amendment to Second Amended and Restated Certificate of Incorporation</a>	<a href="#">8-K</a>	<a href="#">June 13, 2014</a>	<a href="#">3.1</a>
<a href="#">3.4</a>	<a href="#">Certificate of Amendment to Second Amended and Restated Certificate of Incorporation</a>	<a href="#">8-K</a>	<a href="#">June 19, 2015</a>	<a href="#">3.2</a>
<a href="#">3.5</a>	<a href="#">Certificate of Amendment to Second Amended and Restated Certificate of Incorporation</a>	<a href="#">8-K</a>	<a href="#">March 4, 2016</a>	<a href="#">3.1</a>
<a href="#">3.6</a>	<a href="#">Certificate of Amendment to Second Amended and Restated Certificate of Incorporation</a>	<a href="#">8-K</a>	<a href="#">June 1, 2017</a>	<a href="#">3.2</a>
<a href="#">3.7</a>	<a href="#">Amended and Restated By-laws</a>	<a href="#">8-K</a>	<a href="#">June 1, 2011</a>	<a href="#">3.1</a>
<a href="#">4.1</a>	<a href="#">Form of common stock certificate</a>	<a href="#">S-1/A</a>	<a href="#">November 9, 2011</a>	<a href="#">4.1</a>
4.2*	Form of preferred stock certificate			
4.3*	Form of Certificate of Designation with respect to Preferred Stock			
4.4*	Form of Warrant Agreement			
4.5*	Form of Unit Agreement			
4.6*	Form of Subscription Rights Agreement			
<a href="#">5.1</a>	<a href="#">Opinion of Michael Best &amp; Friedrich LLP</a>	<a href="#">S-3</a>	<a href="#">June 5, 2017</a>	<a href="#">5.1</a>
<a href="#">23.1**</a>	<a href="#">Consent of Baker Tilly Virchow Krause, LLP</a>			
<a href="#">23.2</a>	<a href="#">Consent of Michael Best &amp; Friedrich LLP (included in Exhibit 5.1)</a>	<a href="#">S-3</a>	<a href="#">June 5, 2017</a>	<a href="#">5.1</a>
<a href="#">24.1</a>	<a href="#">Power of Attorney (included on the signature page to the registration statement)</a>	<a href="#">S-3</a>	<a href="#">June 5, 2017</a>	<a href="#">24.1</a>
*	To be filed as an exhibit to a current report of the registrant on Form 8-K or other document to be incorporated herein by reference.			
**	Filed herewith.			



CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We have issued our report dated March 15, 2017, with respect to the consolidated financial statements of Collectar Biosciences, Inc. and Subsidiary included in the Annual Report on Form 10-K for the years ended December 31, 2016 and 2015, which is incorporated by reference in this Registration Statement on Form S-3 as amended by this Amendment No. 1. We consent to the incorporation by reference of the aforementioned report in this Registration Statement, and to the use of our name as it appears under the caption "Experts."

/s/ BAKER TILLY VIRCHOW KRAUSE, LLP

*Baker Tilly Virchow Krause, LLP*

Madison, Wisconsin  
September 15, 2017

