

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

FORM 8-A

FOR REGISTRATION OF CERTAIN CLASSES OF SECURITIES
PURSUANT TO SECTION 12(b) OR (g) OF THE
SECURITIES EXCHANGE ACT OF 1934

Collectar Biosciences, Inc.

(Exact name of registrant as specified in its charter)

Delaware

(State of incorporation or organization)

04-3321804

(I.R.S. Employer Identification No.)

3301 Agriculture Drive, Madison, Wisconsin

(Address of principal executive offices)

53716

(Zip Code)

Securities to be registered pursuant to Section 12(b) of the Act:

Title of each class
to be so registered

Name of each exchange on which
each class is to be registered

Common Stock, \$0.00001 par value per share

The NASDAQ Stock Market LLC

Warrants to purchase Common Stock

The NASDAQ Stock Market LLC

If this form relates to the registration of a class of securities pursuant to Section 12(b) of the Exchange Act and is effective pursuant to General Instruction A.(c), check the following box.

If this form relates to the registration of a class of securities pursuant to Section 12(g) of the Exchange Act and is effective pursuant to General Instruction A.(d), check the following box.

Securities Act registration statement file number to which this form relates: 333-196091 (if applicable).

Securities to be registered pursuant to Section 12(g) of the Act:

None

(Title of class)

INFORMATION REQUIRED IN REGISTRATION STATEMENT

Item 1. Description of Registrant's Securities to be Registered.

A description of the securities of Collectar Biosciences, Inc., a Delaware corporation (the "Registrant"), to be registered hereunder is set forth under the heading "Description of Securities" in the prospectus included in the Registrant's Registration Statement on Form S-1 (File No. 333-196091), initially filed with the Securities and Exchange Commission (the "Commission") on May 19, 2014, as subsequently amended (the "Registration Statement"), and in a prospectus to be subsequently filed by the Registrant with the Commission pursuant to Rule 424(b) under the Securities Act of 1933, as amended, relating to the Registration Statement, which prospectus shall be deemed to be incorporated herein by reference.

Item 2. Exhibits.

The following exhibits to this registration statement are incorporated by reference herein:

- 3.1 Second Amended and Restated Certificate of Incorporation of the Registrant (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K dated April 11, 2011)
 - 3.3 Certificate of Amendment to the Second Amended and Restated Certificate of Incorporation of the Registrant (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K dated June 13, 2014)
 - 3.4 Amended and Restated By-laws of the Registrant (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K dated June 1, 2011)
 - 10.31 Form of Warrant Agreement between the Registrant and American Stock Transfer and Trust Company (including the Form of Warrant Certificate attached as Exhibit A thereto) (incorporated by reference to Exhibit 10.31 to Amendment No. 1 to the Registrant's Registration Statement on Form S-1 (File No. 333-196091) dated July 7, 2014)
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SIGNATURE

Pursuant to the requirements of Section 12 of the Securities Exchange Act of 1934, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereto duly authorized.

CELLECTAR BIOSCIENCES, INC.

Date: August 14, 2014

By: /s/ Simon Pedder

Simon Pedder

Chief Executive Officer and President
