

Prospectus Supplement No. 3
(To Prospectus filed on April 28, 2017, as supplemented
by Prospectus Supplement No. 1 dated May 22, 2017, and Prospectus Supplement No. 2 dated May 22, 2017)

ENUMERAL BIOMEDICAL HOLDINGS, INC.

This Prospectus Supplement No. 3 supplements the information contained in the Prospectus, dated as of April 28, 2017, as supplemented by Prospectus Supplement No. 1 dated May 22, 2017, and Prospectus Supplement No. 2 dated May 22, 2017, relating to the resale of up to 133,674,598 shares of our common stock by selling stockholders.

This Prospectus Supplement No. 3 is being filed to include the information set forth in our Current Report on Form 8-K, which was filed with the Securities and Exchange Commission on June 2, 2017.

You should read this Prospectus Supplement No. 3 in conjunction with the Prospectus. This Prospectus Supplement No. 3 is qualified by reference to the Prospectus, except to the extent that the information contained in this Prospectus Supplement No. 3 supersedes the information contained in the Prospectus. This Prospectus Supplement No. 3 is not complete without, and may not be utilized except in connection with, the Prospectus.

You should consider carefully the risks that we have described in “Risk Factors” beginning on page 7 of the Prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this Prospectus Supplement is June 2, 2017

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

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): **May 31, 2017**

Enumeral Biomedical Holdings, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or Other Jurisdiction
of Incorporation)

000-55415
(Commission File
Number)

99-0376434
(I.R.S. Employer
Identification Number)

200 CambridgePark Drive, Suite 2000
Cambridge, Massachusetts
(Address of Principal Executive Offices)

02140
(Zip Code)

(617) 945-9146
(Registrant's telephone number, including area code)

N/A
(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter). Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Item 1.01 Entry into a Material Definitive Agreement

On May 31, 2017, Enumeral Biomedical Holdings, Inc. (“Enumeral”) and Merck Sharp & Dohme Corp. (“Merck”) entered into Amendment No. 2 to Study Agreement (the “Amendment”). The Amendment further amends that certain Study Agreement between Merck and Enumeral, dated as of December 17, 2014 (the “Initial Effective Date”), which was previously amended on February 16, 2016 (as amended, the “Agreement”).

Pursuant to the Amendment, the term of the Agreement is extended and shall now expire on the earlier of (i) delivery to Merck of the final report of the study conducted pursuant to the terms of the Agreement, or (ii) the three (3) year anniversary of the Initial Effective Date, unless extended in writing by mutual agreement. Merck may also terminate the Agreement at any time, with or without cause, effective on ninety days written notice to Enumeral. In addition, the Amendment provides for a revised Work Plan to be included in the Agreement.

The foregoing summary of the Amendment does not purport to be complete and is qualified in its entirety by reference to the Amendment, a copy of which will be filed as an exhibit to the Company’s Quarterly Report on Form 10-Q for the three-month period ending June 30, 2017. The Company intends to seek confidential treatment for certain portions of the Amendment.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

ENUMERAL BIOMEDICAL HOLDINGS, INC.

Dated: June 2, 2017

By: /s/ Kevin G. Samey

Name: Kevin G. Samey

Title: Vice President of Finance, Chief Accounting Officer and
Treasurer
