UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

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

LEAP THERAPEUTICS, INC.

(Exact Name of Registrant as Specified in its Charter)

Delaware (State of Incorporation)

2834

(Primary Standard Industrial Classification Code Number)

27-4412575 (IRS Employer Identification No.)

47 Thorndike Street Suite B1-1 Cambridge, MA 02141 Telephone: (617) 252-4343

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, par value \$0.001 per share	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. o

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. o

If this form relates to the registration of a class of securities concurrently with a Regulation A offering, check the following box. o

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

Securities to be registered pursuant to Section 12(g) of the Act: None

INFORMATION REQUIRED IN REGISTRATION STATEMENT

ITEM 1 — DESCRIPTION OF REGISTRANT'S SECURITIES TO BE REGISTERED

Leap Therapeutics, Inc., a Delaware corporation (the "Registrant"), hereby incorporates by reference herein the description of its common stock, par value \$0.001 per share, to be registered hereunder, set forth under the heading "Description of Leap Capital Stock" in the Registrant's prospectus forming part of its Registration Statement on Form S-4 (File No. 333-333-213794), originally filed with the Securities and Exchange Commission (the "Commission") pursuant to the Securities Act of 1933, as amended (the "Securities Act"), on September 26, 2016, as thereafter amended and supplemented (the "Registration Statement").

ITEM 2 — EXHIBITS

Pursuant to the Instructions as to Exhibits for this registration statement on Form 8-A, no exhibits are required to be filed because no other securities of the Registrant are registered on The NASDAQ Stock Market LLC and the securities registered hereby are not being registered pursuant to Section 12(g) of the Securities Exchange Act of 1934, as amended.

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, hereunto duly authorized.

LEAP THERAPEUTICS, INC.

Date: January 20, 2017 By: /s/ Christopher K. Mirabelli

Name: Christopher K. Mirabelli Title: Chief Executive Officer

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