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

**POST-EFFECTIVE AMENDMENT NO. 1
TO
FORM S-3
REGISTRATION STATEMENT NO. 333-173295
UNDER
THE SECURITIES ACT OF 1933**

CADENCE PHARMACEUTICALS, INC.
(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

41-2142317
(I.R.S. Employer
Identification No.)

**12481 High Bluff Drive, Suite 200
San Diego, CA 92130
(858) 436-1400**

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

**Peter G. Edwards, Esq.
Cadence Pharmaceuticals, Inc.
c/o Mallinckrodt
675 James S. McDonnell Blvd.
Hazelwood, MO 63042
(314) 654-2000**

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies of all communications, including communications sent to agent for service, should be sent to:

**Adam O. Emmerich, Esq.
Benjamin M. Roth, Esq.
Wachtell, Lipton, Rosen & Katz
51 West 52nd Street
New York, NY 10019
(212) 403-1000**

Approximate date of commencement of proposed sale to the public: Cadence Pharmaceuticals, Inc. is hereby amending this registration statement to deregister any securities that had been registered but remain unsold under the 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.

Large accelerated filer

Accelerated filer

Non-accelerated filer (Do not check if a smaller reporting company)

Smaller reporting company

DEREGISTRATION OF SECURITIES

This post-effective amendment (the "Post-Effective Amendment"), filed by Cadence Pharmaceuticals, Inc., a Delaware corporation (the "Company"), removes from registration all securities of the Company registered under the Company's Registration Statement on Form S-3 (File No. 333-173295) (the "Registration Statement").

On February 10, 2014, the Company entered into an Agreement and Plan of Merger with Mallinckrodt plc, an Irish public limited company ("Parent"), and Madison Merger Sub, Inc., a Delaware corporation and an indirect wholly owned subsidiary of Parent ("Purchaser"), providing for, among other things, the merger of Purchaser with and into the Company with the Company becoming an indirect wholly owned subsidiary of Parent (the "Merger") pursuant to Section 251(h) of the General Corporation Law of the State of Delaware. The Merger will become effective on March 19, 2014, pursuant to the Certificate of Merger that will be filed with the Secretary of State of the State of Delaware.

In connection with the Merger, the Company is terminating all offerings of its securities pursuant to its existing registration statements under the Securities Act of 1933, as amended, including the Registration Statement. In accordance with an undertaking made by the Company in the Registration Statement to remove from registration, by means of a post-effective amendment, any securities which remain unsold at the termination of the offering, the Company hereby removes from registration all securities registered under the Registration Statement that remain unsold as of the date hereof.

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 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 San Diego, State of California, on March 19, 2014. No other person is required to sign this Post-Effective Amendment in reliance upon Rule 478 under the Securities Act of 1933.

CADENCE PHARMACEUTICALS, INC.

By: /s/ Theodore R. Schroeder

Theodore R. Schroeder

President and Chief Executive Officer