UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-8 REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

NEKTAR THERAPEUTICS

(Exact name of Registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization) 94-3134940 (I.R.S. Employer Identification Number)

201 Industrial Road

San Carlos, California 94070 (Address, including zip code, of Registrant's principal executive offices)

> Nektar Therapeutics Employee Stock Purchase Plan (Full title of the plan)

Howard W. Robin Chief Executive Officer, President and Director Nektar Therapeutics 201 Industrial Road San Carlos, CA 94070 (650) 631-3100 (Name, address, and telephone number, including zip code, of agent for service)

> Copy to: Sam Zucker, Esq. O'Melveny & Meyers LLP 2765 Sand Hill Road Menlo Park, CA 94025-7019 (650) 473-2638

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 the definitions of "large accelerated filer," "accelerated filer," and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer o

Accelerated filer \square

Non-accelerated filer o

Smaller reporting company o

(Do not check if a smaller reporting company)

CALCULATION OF REGISTRATION FEE

Title of Securities to be Registered	Amount to be Registered	Proposed maximum offering price per share	Proposed maximum aggregate offering price	Amount of registration fee
Common Stock \$.0001 par value	700,000 ⁽¹⁾⁽²⁾ shares	\$14.74 ⁽³⁾	\$10,318,000 ⁽³⁾	\$735.68 ⁽³⁾

(1) This Registration Statement covers, in addition to the number of shares of Nektar Therapeutics, a Delaware corporation (the "Company" or the "Registrant"), common stock, par value \$0.0001 per share (the "Common Stock"), stated above, options and other rights to purchase or acquire the shares of Common Stock covered by this Registration Statement and, pursuant to Rule 416(c) under the Securities Act of 1933, as amended (the "Securities Act"), an additional indeterminate number of shares, options and rights that may be offered or issued pursuant to the Nektar Therapeutics Employee Stock Purchase Plan (the "Plan") as a result of one or more adjustments under the Plan to prevent dilution resulting from one or more stock splits, stock dividends or similar transactions.

(2) Each share of Common Stock is accompanied by a preferred stock purchase right pursuant to the Rights Agreement, dated as of June 1, 2001, as may be amended from time to time, between the Registrant and Mellon Investor Services LLC, as Rights Agent.

(3) Pursuant to Rule 457(h) under the Securities Act, the maximum offering price, per share and in the aggregate, and the registration fee were calculated based upon the average of the high and low prices of the Common Stock on November 2, 2010, as quoted on the Nasdaq Global Market.

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STATEMENT UNDER GENERAL INSTRUCTION E -

REGISTRATION OF ADDITIONAL SECURITIES

This Registration Statement registers additional shares of the Registrant's Common Stock to be issued pursuant to the Plan. Accordingly, the contents of the Registration Statements on Form S-8 filed by the Registrant with the Securities and Exchange Commission on June 1, 1994 (File No. 33-79630) and August 19, 2002 (File No. 333-98321) (together, the "Previous Registration Statements"), including periodic reports that the Registrant filed after the Previous Registration Statements to maintain current information about the Registrant, are incorporated by reference into this Registration Statement pursuant to General Instruction E of Form S-8.

PART I

INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

The document(s) containing the information specified in Part I of Form S-8 will be sent or given to participants as specified by Rule 428(b)(1) of the Securities Act.

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PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Certain Documents by Reference

The following documents of the Company filed with the Securities and Exchange Commission (the "Commission") are incorporated herein by reference:

- (a) The Company's Annual Report on Form 10-K for its fiscal year ended December 31, 2009, filed with the Commission on March 3, 2010 (Commission File No. 000-24006).
- (b) The Company's Quarterly Reports on Form 10-Q for its fiscal quarters ended March 31, 2010, June 30, 2010, and September 30, 2010, filed with the Commission on May 6, 2010, July 29, 2010 and November 4, 2010, respectively (Commission File No. 000-24006).
- (c) The Company's Current Reports on Form 8-K filed with the Commission on February 3, 2010 (with respect to Item 5.02 only), February 4, 2010 (with respect to Item 5.02 only), July 6, 2010 and November 2, 2010 (Commission File No. 000-24006).
- (d) The description of the Company's Common Stock contained in its Registration Statement on Form 8-A filed with the Commission on May 2, 1994 (Commission File No. 000-24006), and any other amendment or report filed for the purpose of updating such description.
- (e) The description of the Company's preferred stock purchase rights contained in its Current Report on Form 8-K filed with the Commission on June 4, 2001 (Commission File No. 000-24006), and any other amendment or report filed for the purpose of updating such description.

All documents subsequently filed by the Company pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), prior to the filing of a post-effective amendment which indicates that all securities offered hereby have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference into this Registration Statement and to be a part hereof from the date of filing of such documents; provided, however, that documents or information deemed to have been furnished and not filed in accordance with Commission rules shall not be deemed to be incorporated by reference herein, shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein, so modified or superseded shall not be deemed, except as so modified or amended, to constitute a part of this Registration Statement.

Item 5. Interests of Named Experts and Counsel

Not applicable.

Item 8. Exhibits

See the attached Exhibit Index at page 8, which is incorporated herein by reference.

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SIGNATURES

Pursuant to the requirements of the Securities Act, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Form S-8 Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of San Carlos, State of California, on November 4, 2010.

Nektar Therapeutics

By: /s/ Howard W. Robin

Howard W. Robin Chief Executive Officer and President

POWER OF ATTORNEY

Each person whose signature appears below constitutes and appoints Howard W. Robin and John Nicholson, and each of them, acting individually and without the other, as his or her true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him or her and in his or her name, place, and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments, exhibits thereto and other documents in connection therewith) to this Registration Statement, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or either of them individually, or their or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act, this Registration Statement has been signed below by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Howard W. Robin Howard W. Robin	Chief Executive Officer, President and Director (Principal Executive Officer)	November 4, 2010
/s/ John Nicholson John Nicholson	Senior Vice President and Chief Financial Officer (Principal Financial Officer)	November 4, 2010
/s/ Jillian B. Thomsen Jillian B. Thomsen	Senior Vice President Finance and Chief Accounting Officer (Principal Accounting Officer)	November 4, 2010
/s/ Robert B. Chess Robert B. Chess	Director, Chairman of the Board of Directors	November 4, 2010
/s/ R. Scott Greer R. Scott Greer	Director	November 4, 2010
/s/ Joseph J. Krivulka Joseph J. Krivulka	Director	November 4, 2010
/s/ Christopher A. Kuebler Christopher A. Kuebler	Director	November 4, 2010
/s/ Lutz Lingnau Lutz Lingnau	Director	November 4, 2010
/s/ Susan Wang Susan Wang	Director	November 4, 2010
/s/ Roy A. Whitfield Roy A. Whitfield	Director	November 4, 2010
/s/ Dennis L. Winger Dennis L. Winger	Director	November 4, 2010

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EXHIBIT INDEX

Exhibit Number	Description of Exhibit		
4.1	Nektar Therapeutics Employee Stock Purchase Plan. (Filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the Commission on July 6, 2010 (Commission File No. 000-24006) and incorporated herein by this reference.)		
5.1	Opinion of O'Melveny & Myers LLP (opinion re legality).		
23.1	Consent of independent registered public accounting firm.		
23.2	Consent of Counsel (included in Exhibit 5.1).		
24.	Power of Attorney (included in this Registration Statement under "Signatures").		
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November 4, 2010

Nektar Therapeutics 201 Industrial Road San Carlos, California 94070

Re: **Registration of Securities of Nektar Therapeutics**

Ladies and Gentlemen:

In connection with the registration of up to 700,000 shares of Common Stock of Nektar Therapeutics, a Delaware corporation (the "Company"), par value \$0.0001 per share (the "Shares"), and additional preferred share purchase rights pursuant to the Rights Agreement, dated June 1, 2001, between the Company and Mellon Investor Services LLC, as Rights Agent (the "Rights"), under the Securities Act of 1933, as amended, pursuant to a Registration Statement on Form S-8 (the "Registration Statement"), filed with the Securities and Exchange Commission on or about the date hereof, such Shares to be issued or delivered pursuant to the Nektar Therapeutics Employee Stock Purchase Plan (the "Plan"), you have requested our opinion set forth below.

In our capacity as counsel, we have examined originals or copies of those corporate and other records of the Company we considered appropriate.

On the basis of such examination and our consideration of those questions of law we considered relevant, and subject to the limitations and qualifications in this opinion, we are of the opinion that the Shares and related Rights have been duly authorized by all necessary corporate action on the part of the Company and, when issued in accordance with such authorization, the provisions of the Plan and relevant agreements duly authorized by and in accordance with the terms of the Plan, and upon payment for and delivery of the Shares as contemplated in accordance with the Plan, and either (a) the countersigning of the certificate or certificates representing the Shares by a duly authorized signatory of the registrar for the Company's Common Stock, or (b) the book-entry of the Shares by the transfer agent for the Company's Common Stock in the name of The Depository Trust Company or its nominee, the Shares will be validly issued, fully paid and non-assessable, and the Rights that accompany such Shares will be validly issued.

We consent to your filing this opinion as an exhibit to the Registration Statement.

Respectfully submitted,

/s/ O'Melveny & Meyers LLP

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statement (Form S-8) to be filed on November 4, 2010, pertaining to the Employee Stock Purchase Plan of Nektar Therapeutics of our reports dated March 2, 2010, with respect to the consolidated financial statements and schedule of Nektar Therapeutics and the effectiveness of internal control over financial reporting of Nektar Therapeutics included in its Annual Report (Form 10-K) for the year ended December 31, 2009, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP Palo Alto, California November 4, 2010