UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

POST-EFFECTIVE AMENDMENT NO. 1

FORM S-8

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

CELLDEX THERAPEUTICS, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

13-3191702

(I.R.S. employer identification number)

119 Fourth Avenue Needham, Massachusetts 02494 (781) 433-0771

(Address of principal executive offices; zip code)

Celldex Therapeutics, Inc. 2004 Employee Stock Purchase Plan

(Full title of the plan)

Avery W. Catlin Chief Financial Officer CELLDEX THERAPEUTICS, INC. 119 Fourth Avenue Needham, Massachusetts 02494 (781) 433-0771

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

Copies to:

Anthony O. Pergola, Esq.

Lowenstein Sandler PC 65 Livingston Avenue Roseland, New Jersey 07068 (973) 597-2500

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.

Large accelerated filer o

Accelerated filer x

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

Smaller reporting company o

Calculation of Registration Fee

		Proposed		Proposed	
Title of Securities	Amount to be	Maximum Offering	N	Iaximum Aggregate	Amount of
to be Registered	Registered	Price per Share		Offering Price	Registration Fee
Common Stock, par value					
\$0.001 per share	50,000 shares(1)(2)(3)	\$ 4.69(4)	\$	234,500(4)	\$ 17

- (1) This Registration Statement also relates to rights to purchase shares of Series C-1 Junior Participating Cumulative Preferred Stock of the Company which are attached to all shares of Common Stock issued, pursuant to the terms of the Company's Shareholder Rights Agreement dated November 5, 2004 (as amended). Until the occurrence of certain prescribed events, the Rights are not exercisable, are evidenced by the certificates for the Common Stock and will be transferred with and only with such stock. Because no separate consideration is paid for the rights, the registration fee therefore is included in the fee for the Common Stock.
- (2) This represents shares of common stock, par value \$0.001 per share ("Common Stock"), which may be issued under the Celldex Therapeutics, Inc. 2004 Employee Stock Purchase Plan (the "2004 Plan").
- (3) In accordance with Rule 416 under the Securities Act of 1933, as amended (the "Securities Act"), this Post-Effective Amendment No. 1 to Registration Statement File No. 333-117602 (this "Post-Effective Amendment") also covers such indeterminate number of additional shares of Common Stock as may be required pursuant to the 2004 Plan in the event of a stock dividend, reverse stock split, split-up, recapitalization, forfeiture of stock under the plan or other similar event.
- (4) Estimated, in accordance with Rule 457(c) and Rule 457(h)(1) of the Securities Act, solely for the purpose of calculating the registration fee. The proposed maximum offering price per share and the proposed maximum aggregate offering price are based on the average of the high and low prices for a share of Common Stock on the Nasdaq Global Market on January 8, 2010, which is within five business days prior to the date of this registration statement.

EXPLANATORY NOTE

This Post-Effective Amendment No. 1 to Registration Statement File No. 333-117602 is being filed by the registrant, Celldex Therapeutics, Inc. (the "Company"), for the purpose of increasing the number of shares of common stock, par value \$0.001 per share ("Common Stock"), to be issued under the 2004 Employee Stock Purchase Plan (the "2004 Plan") by 50,000 shares, from 12,500 shares to 62,500 shares, pursuant to General Instruction E on Form S-8 (Registration of Additional Securities). The contents of the original registration statement (File No. 333-117602) are hereby incorporated by reference and made a part hereof. The stockholders of the registrant approved amending the 2004 Plan for this purpose at the annual meeting of stockholders held on December 16, 2009.

PART II INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Certain Documents by Reference

The Securities and Exchange Commission allows us to "incorporate" into this registration statement information we file with other documents. This means that we may disclose important information to you by referring to other documents that contain that information. The information incorporated by reference is considered to be part of this registration statement, and information we file later with the Securities and Exchange Commission will automatically update and supersede this information. We incorporate by reference the documents listed below, except to the extent information in those documents is different from the information contained in this registration statement:

- · Our Annual Report on Form 10-K for the year ended December 31, 2008, filed on March 2, 2009.
- · Our Quarterly Reports on Form 10-Q for the quarterly period ended March 31, 2009, filed on May 8, 2009, the quarterly period ended June 30, 2009, filed on August 7, 2009 and the quarterly period ended September 30, 2009, filed on November 6, 2009.
- Our Current Reports on Form 8-K filed with the Commission on January 8, 2009, February 5, 2009, February 27, 2009, May 5, 2009, May 29, 2009, June 2, 2009, August 5, 2009, September 4, 2009, October 2, 2009, November 4, 2009, December 31, 2009, January 8, 2010 and on Form 8-K/A filed with the Commission on October 21, 2009 (in each case except to the extent furnished but not filed).
- · The description of our Common Stock contained in its Registration Statement on Form 8-A, filed with the Commission on September 22, 1986 under Section 12 of the Securities Exchange Act of 1934, as amended, and any amendments or reports filed for the purpose of updating such description.
- The description of the rights to purchase our Series C-1 Junior Participating Cumulative Preferred Stock contained in our registration statement on Form S-4, filed with the SEC on December 21, 2007, our registration statement on Form 8-A filed with the SEC on November 8, 2004, Celldex's registration statement on Form 8-A/A filed with the SEC on October 22, 2007, Celldex's registration statement on Form 8-A/A filed with the SEC on March 7, 2008, and any amendment or report filed with the SEC for the purposes of updating such descriptions.

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In addition, we incorporate by reference the documents listed below made by CuraGen Corporation ("CuraGen") with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934:

- CuraGen's Annual Report on Form 10-K for the year Fiscal year ended December 31, 2008, filed on March 10, 2009 as amended by Amendment No. 1 to CuraGen's Annual Report on Form 10-K for the Fiscal Year ended December 31, 2008 filed on April 30, 2009 and Amendment No. 2 to CuraGen's Annual Report on Form 10-K for the fiscal year ended December 31, 2008 filed on June 19, 2009.
- · CuraGen's Quarterly Reports on Form 10-Q for the quarterly period ended March 31, 2009, filed on May 7, 2009, the quarterly period ended June 30, 2009, filed August 5, 2009 and the quarterly period ended September 30, 2009, filed November 6, 2009.
- · CuraGen's Current Reports on Form 8-K filed with the Commission on January 26, 2009, January 29, 2009, April 23, 2009, May 29, 2009, June 18, 2009, July 31, 2009, September 25, 2009, October 2, 2009 and December 31, 2009 and on Form 8-K/A filed with the Commission on March 27, 2009, June 3, 2009 and October 21, 2009 (in each case except to the extent furnished but not filed).

All documents subsequently filed by us with the Securities and Exchange Commission pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), prior to the filing of a post-effective amendment to this registration statement, 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 in this registration statement and to be a part hereof from the date of filing of such documents.

Item 8. Exhibits

The exhibits accompanying this registration statement are listed on the accompanying exhibit index.

Item 9. Undertakings

- (a) The undersigned registrant hereby undertakes:
 - (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
 - (i) To include any prospectus required by section 10(a)(3) of the Securities Act;

(ii) To reflect in the prospectus any facts or events arising after the effective date of this registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Securities and

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Exchange Commission pursuant to Rule 424(b) promulgated under the Securities Act if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement.

Provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the registration statement is on Form S-8 and the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Securities and Exchange Commission by the undersigned registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in the registration statement; and that paragraphs (a)(1)(i), (a)(1)(ii) and (a)(1)(iii) do not apply if the registration statement is on Form S-3 and the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Securities and Exchange Commission by the undersigned registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is deemed part of the registration statement. *Provided further, however*, that paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the registration statement is for an offering of asset-backed securities on Form S-1 or Form S-3, and the information required to be included in a post-effective amendment is provided pursuant to Item 1100(c) of Regulation AB.

- That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
 - (5) That, for the purpose of determining liability under the Securities Act to any purchaser:
 - (i) If the registrant is relying on Rule 430B:
 - (A) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and
 - (B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in

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Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. *Provided*, *however*, that no statement made in a registration statement or prospectus that is part of the registration statement or prospectus that is part of the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date; or

- (ii) If the registrant is subject to Rule 430C, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. *Provided*, *however*, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.
- (6) That, for the purpose of determining liability of the registrant under the Securities Act to any purchaser in the initial distribution of the securities:

The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

- (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
- (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
- (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

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- (iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.
- (b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the undersigned registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (h) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

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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-8 and has duly caused this Post-Effective Amendment No. 1 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Needham, Commonwealth of Massachusetts, on January 13, 2010.

CELLDEX THERAPEUTICS, INC.

By: /s/ Anthony S. Marucci

Anthony S. Marucci

President and Chief Executive Officer

(Principal Executive Officer)

By: /s/ Avery W. Catlin

Avery W. Catlin

Senior Vice President, Treasurer and Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)

Signature	Title	Date
/s/ Anthony S. Marucci*		January 13, 2010
Anthony S. Marucci	President, Chief Executive Officer and	
*	Director	January 13, 2010
Larry Ellberger	Director	variatry 15, 2010
*		January 13, 2010
Herbert J. Conrad	Director	
*		January 13, 2010
George O. Elston	Director	
*		January 13, 2010
Karen Shoos Lipton	Director	
*		January 13, 2010
Dr. Rajesh B. Parekh	Director	
Harry H. Penner, Jr.	Director	

Charles R.	* January 13, 2010 Schaller Director				
Timothy N	M. Shannon, M.D. Director				
	undersigned, by signing his name hereto, does sign and execute this Registration Statement pursuant to Powers of Attorney executed by the above-d persons and previously filed with the Securities and Exchange Commission.				
Dated: Jan	nuary 13, 2010 */s/ Avery W. Catlin Attorney-in-Fact				
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	EXHIBIT INDEX				
Exhibit Number	Description				
5.1	Opinion of Lowenstein Sandler PC*				
23.1	Consent of PricewaterhouseCoopers LLP, Independent Registered Public Accounting Firm of Celldex Therapeutics, Inc.*				
23.2	Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm of Celldex Therapeutics, Inc.*				
23.3	Consent of Deloitte & Touche LLP, Independent Registered Public Accounting Firm of CuraGen Corporation*				
23.4	Consent of Lowenstein Sandler PC (contained in Exhibit 5.1)*				
* Filed her	rewith.				
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January 13, 2010

Celldex Therapeutics, Inc. 119 Fourth Avenue Needham, Massachusetts 02494

Re: Post-Effective Amendment No. 1 to Registration Statement on Form S-8

Ladies and Gentlemen:

We have served as special counsel in connection with the preparation of your Post-Effective Amendment No. 1 to your Registration Statement on Form S-8 (the "Post-Effective Amendment") to be filed with the Securities and Exchange Commission under the Securities Act of 1933, as amended (the "Act"), representing the offering and issuance to certain persons under the Celldex Therapeutics, Inc. 2004 Employee Stock Purchase Plan (the "2004 Plan") of an aggregate of up to 62,500 shares of your common stock, par value \$0.001 per share (the "Common Stock").

We have examined such corporate records, certificates and other documents and such questions of law as we have considered necessary and appropriate for the purposes of this opinion.

Upon the basis of such examination, we advise you that, in our opinion, the shares of Common Stock issuable under the Plan will be, when sold, paid for and issued as contemplated by the terms of the Plan, duly authorized, validly issued, fully paid and non-assessable.

Our opinion herein is expressed solely with respect to the federal laws of the United States and the laws of the State of Delaware. Our opinion is based on these laws as in effect on the date hereof.

We hereby consent to the filing of this opinion as an exhibit to the Post-Effective Amendment and to the references to this firm in the Post-Effective Amendment. In giving such consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Act.

Very truly yours,

/s/ Lowenstein Sandler PC

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of our report dated March 2, 2009 relating to the financial statements and the effectiveness of internal control over financial reporting, which appears in Celldex Therapeutics, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2008.

/s/ PricewaterhouseCoopers LLP

Boston, Massachusetts January 13, 2010

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Post-Effective Amendment No. 1 to the Registration Statement on Form S-8 (File No. 333-117602) pertaining to the 2004 Employee Stock Purchase Plan of Celldex Therapeutics, Inc. of our report dated May 7, 2008, with respect to the consolidated financial statements Celldex Therapeutics, Inc. and Subsidiary, included in the 2008 Annual Report to Shareholders (Form 10-K) of Celldex Therapeutics, Inc., filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Metro Park, New Jersey January 13, 2010

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Post-Effective Amendment No. 1 to Registration Statement No. 333-117602 on Form S-8 of our report dated March 9, 2009, relating to the consolidated financial statements of CuraGen Corporation and subsidiary, and the effectiveness of CuraGen Corporation's internal control over financial reporting, appearing in 1) the Annual Report on Form 10-K, as amended by Amendment No. 2 filed on June 19, 2009 of CuraGen Corporation for the year ended December 31, 2008 and 2) the Current Report on Form 8-K/A of Celldex Therapeutics, Inc. dated October 21, 2009.

/s/ Deloitte & Touche LLP

Hartford, CT January 13, 2010