ABIOMED INC Form SC 13G/A February 14, 2011

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

SCHEDULE 13G

Under the Securities Exchange Act of 1934 (Amendment No. 2)*

ABIOMED, INC. (Name of Issuer) COMMON STOCK, \$0.01 PAR VALUE (Title of Class of Securities) 003654100 (CUSIP Number) December 31, 2010 (Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

o Rule 13d-1(b)

þ Rule 13d-1(c)

o Rule 13d-1(d)

* The remainder of this cover page shall be filled out for a reporting person s initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be filed for the purpose of Section 18 of the Securities Exchange Act of 1934 (Act) or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

CUSIP No. 003654100

NAMES OF REPORTING PERSONS.

I.R.S. Identification Nos. of above persons (entities only).

Genzyme Corporation (IRS Identification No. 06-1047163)

CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) Not applicable.

2

1

- (a) o
- (b) o

SEC USE ONLY

3

CITIZENSHIP OR PLACE OF ORGANIZATION

4

Massachusetts

SOLE VOTING POWER

NUMBER OF 1,941,231

5

SHARES BENEFICIALLY OWNED BY	6	SHARED VOTING POWER
		0
EACH	7	SOLE DISPOSITIVE POWER
REPORTING PERSON	,	1,941,231
WITH	8	SHARED DISPOSITIVE POWER
		0

AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

9

1,941,231

10	CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS)
	Not applicable.
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)
	5.10%
12	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)
	СО

Item 1.

(a) Name of Issuer

ABIOMED, Inc.

(b) Address of Issuer s Principal Executive Offices

22 Cherry Hill Drive, Danvers, MA 01923

Item 2.

(a) Name of Person Filing

Genzyme Corporation

(b) Address of Principal Business Office or, if none, Residence

500 Kendall Street, Cambridge, MA 02142

(c) Citizenship

Genzyme Corporation is a Massachusetts corporation.

(d) Title of Class of Securities

Common Stock, \$0.01 par value per share

(e) CUSIP Number

003654100

- Item 3. If this statement is filed pursuant to §§240.13d-1(b) or 240.13d-2(b) or (c), check whether the person filing is a:
 - (a) [] Broker or dealer registered under section 15 of the Act (15 U.S.C. 780).
 - (b) [] Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c).
 - (c) [] Insurance company as defined in section 3(a)(19) of the Act (15 U.S.C. 78c).
 - (d) [] Investment company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C 80a-8).
 - (e) [] An investment adviser in accordance with 240.13d-1(b)(1)(ii)(E);
 - (f) [] An employee benefit plan or endowment fund in accordance with 240.13d-1(b)(1)(ii)(F);
 - (g) [] A parent holding company or control person in accordance with § 240.13d-1(b)(1)(ii)(G);

- (h) [] A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813);
- (i) [] A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3);
- (j) [] Group, in accordance with 240.13d-1(b)(1)(ii)(J).

Not applicable.

Item 4. Ownership.

Provide the following information regarding the aggregate number and percentage of the class of securities of the issuer identified in Item 1.

- (a) Amount beneficially owned: 1,941,231
- (b) Percent of class: 5.10%
- (c) Number of shares as to which the person has:
 - (i) Sole power to vote or to direct the vote 1,941,231
 - (ii) Shared power to vote or to direct the vote 0
 - (iii) Sole power to dispose or to direct the disposition of 1,941,231
 - (iv) Shared power to dispose or to direct the disposition of 0

Item 5. Ownership of Five Percent or Less of a Class

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following []. Not applicable.

Item 6. Ownership of More than Five Percent on Behalf of Another Person.

Not applicable.

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on By the Parent Holding Company or Control Person.

Not applicable.

Item 8. Identification and Classification of Members of the Group Not applicable. Item 9. Notice of Dissolution of Group Not applicable. Item 10. Certification

> By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Date: February 14, 2011

GENZYME CORPORATION

By: /s/ Peter Wirth Peter Wirth Executive Vice President, Legal and Corporate Development