EXACT SCIENCES CORP Form SC 13D/A April 20, 2010

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 13D

Under the Securities Exchange Act of 1934 (Amendment No. 1)*

EXACT Sciences Corporation

(Name of Issuer)

Common Stock, par value \$0.01 per share

(Title of Class of Securities)

30063P105

(CUSIP Number)

Peter Wirth

Genzyme Corporation

500 Kendall Street

Cambridge, Massachusetts 02142

(617) 252-7500

(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)

with copies to:

Paul Kinsella

Ropes & Gray LLP

One International Place

Boston, Massachusetts 02110

(617) 951-7000

April 14, 2010

(Date of Event Which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition which is the subject of this Schedule 13D, and is filing this schedule because of §§240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box. o

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See § 240.13d-7 for other parties to whom copies are to be sent.

* 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 disclosures provided in a prior cover page.

The information required on 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.

(Continued on following pages)

CUSIP No. 30063P105

1.	Names of Reporting Persons Genzyme Corporation				
2.	Check the Appropriate Box if a Member of a Group (a) o (b) o				
3.	SEC Use Only				
4.	Source of Funds Not Applicable				
5.	Check Box if Disclosure of Legal Proceedings Is Required Pursuant to Item 2(d) or 2(e) o				
6.	Citizenship or Place of Org Massachusetts	anization			
	7.	Sole Voting Power 2,549,170 shares of Common Stock			
Number of Shares Beneficially	8.	Shared Voting Power			
Owned by Each Reporting	9.	Sole Dispositive Power 2,549,170 shares of Common Stock			
Person With	10.	Shared Dispositive Power			
11.	Aggregate Amount Benefic 2,549,170 shares of Commo	cially Owned by Each Reporting Person on Stock			
12.	Check if the Aggregate Am	Check if the Aggregate Amount in Row (11) Excludes Certain Shares o			
13.	Percent of Class Represented by Amount in Row (11) 6.37%				
14.	Type of Reporting Person CO				

Item 1. Security and Issuer

This Amendment No. 1 to Schedule 13D amends and supplements the Schedule 13D filed on February 6, 2009 (the Original Statement) relating to the Common Stock, \$0.01 par value per share (the *Common Stock*), of EXACT Sciences Corporation (the *Issuer*), a Delaware corporation. The principal executive offices of the Issuer are located at 441 Charmany Drive, Madison, Wisconsin, 53719.

Except as set forth below, there are no changes to the information set forth in the Original Statement. Capitalized terms used but not otherwise defined herein have the meanings ascribed to them in the Original Statement.

Item 4. Purpose of Transaction

Item 4 is amended and supplemented by inserting the following text at the end of that item:

Genzyme expects to dispose of additional shares of Common Stock of the Issuer held by it, from time to time, in open market transactions, privately negotiated sales, or other methods. The implementation of these plans, and changes in these plans, will depend on market conditions, including trading activity in Common Stock of the Issuer.

Item 5. Interest in Securities of the Issuer

Item 5 is hereby amended and restated to read in its entirety as follows:

(a) Genzyme has beneficial ownership of 2,549,170 shares of Common Stock of the Issuer, which constitutes 6.37% of the outstanding shares of the Issuer's Common Stock. This percentage was calculated based on disclosure in the Issuer's Rule 424(b)(5) prospectus (the Prospectus) filed with the SEC on April 14, 2010, that, after giving effect to the offering contemplated by the Prospectus, there would be 40,032,021 shares of Issuer Common Stock outstanding. As of April 14, 2010, Connie Mack III beneficially owns and has sole power to vote and sole power of disposition over 201,023(1) shares of Common Stock of the Issuer, representing approximately .5% of the Issuer Common Stock issued and outstanding as of that date.

Other than as provided in this Item 5, Genzyme, nor, to the knowledge of Genzyme, any person listed on Schedule 1, owns or has any rights to acquire, directly or indirectly, any shares of Common Stock of the Issuer.

(b) Genzyme has the sole power to vote or to direct the vote or to dispose or to direct the disposition of the shares of Common Stock of the Issuer beneficially owned by it.

(1) Represents the number of shares owned by Senator Mack and the number of shares issuable to Senator Mack pursuant to options or warrants that may be exercised within 60 days as of April 14, 2010 based on the Issuer s proxy statement filed with the Securities and Exchange Commission on April 29, 2009 and Senator Mack s subsequent filings under Section 16 of the Exchange Act.

(c) Genzyme effected the following transactions with respect to shares of Common Stock of the Issuer during the past sixty (60) days. All such sales were made in conformity with the requirements of Rule 144 under the Securities Act of 1933, as amended.

No. of Shares Sold		Price Per Share
32,267	\$	4.193
20,000	\$	4.051
1,643	\$	3.856
10,000	\$	4.365
10,000	\$	4.387
100,000	\$	4.839
40,000	\$	4.763
20,000	\$	4.868
10,000	\$	4.801
3,850	\$	4.837
10,000	\$	4.545
10,000	\$	4.683
5,270	\$	4.642
10,000	\$	4.531
1,750	\$	4.523
6,750	\$	4.505
10,000	\$	4.560
29,300	\$	4.703
10,000	\$	4.846
100,000	\$	4.506
10,000	\$	4.500
	32,267 20,000 1,643 10,000 10,000 100,000 40,000 20,000 10,000 3,850 10,000 10,000 5,270 10,000 1,750 6,750 10,000 29,300 10,000 100,000	32,267 \$ 20,000 \$ 1,643 \$ 10,000 \$ 10,000 \$ 100,000 \$ 20,000 \$ 20,000 \$ 3,850 \$ 10,000 \$ 10,000 \$ 5,270 \$ 10,000 \$ 1,750 \$ 6,750 \$ 10,000 \$ 29,300 \$ 10,000 \$ 10,000 \$

(d) Except as set forth in this Item 5, no other person is known by Genzyme to have the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, the shares of Common Stock of the Issuer beneficially owned by Genzyme.

(e) Not applicable.

Signatures

After reasonable inquiry and to the best of its knowledge and belief, the undersigned certifies that the information set forth in this Statement is true, complete and correct.

Dated: April 20, 2010

GENZYME CORPORATION

By: /s/ Michael S. Wyzga Name: Michael S. Wyzga

Title: Executive Vice President, Finance and

Chief Financial Officer

5

SCHEDULE 1

DIRECTORS AND EXECUTIVE OFFICERS OF GENZYME CORPORATION

Set forth below is the name, present principal occupation or employment and the name, principal business and address of any corporation or other organization in which such employment is conducted for each director and executive officer of Genzyme. Unless otherwise indicated, each individual is a citizen of the United States, and his or her business address is c/o Genzyme Corporation, 500 Kendall Street, Cambridge, MA 02142.

Directors

Henri A. Termeer Chairman of the Board, President and Chief Executive Officer Genzyme Corporation

Robert J. Bertolini

Former Executive Vice President and Chief Financial Officer

Schering-Plough

c/o Genzyme Corporation

500 Kendall Street

Cambridge, MA 02142

Douglas A. Berthiaume Chairman, President and Chief Executive Officer Waters Corporation 34 Maple Street Milford, Massachusetts 01757

Gail Koziara Boudreaux Executive Vice President

UnitedHealth Group 9900 Bren Road E

MN008-T030

Minnetonka, MN 55343

Robert J. Carpenter Chairman Hydra Biosciences, Inc. 790 Memorial Drive Cambridge, MA 02139

Charles L. Cooney Professor of Chemical and Biochemical Engineering Massachusetts Institute of Technology Room 56-469B 77 Massachusetts Avenue Cambridge, Massachusetts 02139

Victor J. Dzau Chancellor for Health Affairs and President and Chief Executive Officer Duke University Health System 106 Davidson Building Durham, North Carolina 27710

Liberty Partners Group, LLC 1050 K Street, NW Suite 315 Washington, DC 20001 Richard F. Syron Former Chairman and Chief Executive Officer Federal Home Loan Mortgage Corporation c/o Genzyme Corporation 500 Kendall Street Cambridge, Massachusetts 02142 Ralph Whitworth Relational Investors LLC 12400 High Bluff Drive Suite 600 San Diego, California 92130 **Executive Officers** Henri A. Termeer Chairman of the Board, President and Chief Executive Officer Scott Canute Executive Vice President; President, Global Manufacturing and Corporate Operations

Thomas J. DesRosier

Zoltan A. Csimma

Chief Human Resources Officer; Senior Vice President

Connie Mack III

Government Relations Consulting Partner

Senior Vice President; General Counsel; Chief Legal Officer
James A. Geraghty Senior Vice President
David P. Meeker, M.D.
Executive Vice President and Chief Operating Officer Richard A. Moscicki, M.D.
Chief Medical Officer; Senior Vice President, Medical, Clinical Affairs Alan E. Smith, Ph.D.
Chief Scientific Officer; Senior Vice President, Research Sandford D. Smith
Executive Vice President; President, International Group Peter Wirth
Executive Vice President, Legal and Corporate Development; Secretary Michael S. Wyzga
Chief Financial Officer; Executive Vice President, Finance