Via Facsimile and U.S. Mail Mail Stop 6010

July 26, 2007

Mr. Michael S. Wyzga
Executive Vice President, Finance, Chief Financial
Officer and Chief Accounting Officer
Genzyme Corporation
500 Kendall Street
Cambridge, MA 02142

Re: Genzyme Corporation

Form 10-K for Fiscal Year Ended December 31, 2006

File No. 0-14680

Dear Mr. Wyzga:

We have completed our review of your Form 10-K and have no further comments at this time.

Sincerely,

Jim B. Rosenberg Senior Assistant Chief Accountant