

GENENTECH INC  
 Form 424B4  
 April 28, 2004  
 PROSPECTUS SUPPLEMENT

FILED PURSUANT TO RULE 424(B)(4)

TO PROSPECTUS DATED MARCH 28, 2001

REGISTRATION NO. 333-37072

## GENENTECH, INC.

### SHARES OF COMMON STOCK

This prospectus supplement relates to the sale by certain selling shareholders of our common stock, par value \$.02 per share, that was originally delivered in exchange for Liquid Yield Option Notes due 2015 issued by Roche Holdings, Inc.

This prospectus supplement should be read in conjunction with the prospectus dated March 28, 2001, which is to be delivered with this prospectus supplement. All capitalized terms used but not defined in the prospectus supplement shall have the meanings given them in the prospectus.

The table below sets forth information as of the date hereof concerning beneficial ownership of the common stock of the selling shareholders as listed below. All information concerning beneficial ownership has been furnished by the selling shareholders.

NAME	NUMBER OF SHARES OF COMMON STOCK OWNED PRIOR TO OFFERING	NUMBER OF SHARES OFFERED	NUMBER OF SHARES OF COMMON STOCK OWNED AFTER THE OFFERING	PERCENTAGE OF COMMON STOCK OUTSTANDING
ABN Amro NV	1,394,064	1,394,064	0	*
Arkansas PERS	16,873	16,873	0	*
Prudential Insurance Co of America	1,471	1,471	0	*
State of Oregon/Equity	76,147	76,147	0	*
Duke Endowment	4,110	4,110	0	*
Louisiana CCRF	4,110	4,110	0	*
Delta Airlines Master Trust	9,864	9,864	0	*
Nuveen Preferred and Convertible Income Fund JPC	106,347	106,347	0	*
Froley Revy Investment Convertible Security Fund	2,466	2,466	0	*
Argent Classic Convertible Arbitrage (Bermuda) Fund Ltd.	35,477	35,477	0	*

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\* Less than 1%

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THE SECURITIES OFFERED HEREBY INVOLVE A HIGH DEGREE OF RISK. SEE  
RISK FACTORS BEGINNING ON PAGE 3 OF THE PROSPECTUS.

THESE SECURITIES HAVE NOT BEEN APPROVED OR DISAPPROVED BY THE SECURITIES AND  
EXCHANGE COMMISSION NOR HAS THE SECURITIES AND  
EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION PASSED  
UPON THE ACCURACY OR ADEQUACY OF THIS PROSPECTUS. ANY  
REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this Prospectus Supplement is April 28, 2004.

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