

Prospectus Supplement No. 7 dated May 10, 2004
(To Prospectus dated July 9, 2002)

\$1,204,950,000
IDEC Pharmaceuticals Corporation
Liquid Yield Option™ Notes due 2032
(Zero Coupon—Senior)
and Shares of Common Stock Issuable Upon Conversion and/or Purchase
of the Liquid Yield Option™ Notes due 2032

This document supplements the prospectus dated July 9, 2002, as amended and supplemented through the date hereof, relating to the resale by the holders of Liquid Yield Option™ Notes (Zero Coupon—Senior) (the "LYONs") due April 29, 2032 and the shares of our common stock into which the LYONs are convertible.

This prospectus supplement is incorporated by reference into, and should be read in conjunction with, the prospectus dated July 9, 2002, including any amendments or supplements to it. This prospectus supplement is not complete without, and may not be delivered or utilized except in connection with, the prospectus, including any amendments or supplements to it.

The table presented below sets forth information as of the date of this prospectus supplement about the principal amount at maturity of the LYONs and the underlying common stock beneficially owned by each selling security holder that may be offered using the prospectus. All of the information set forth in the table has been provided by the selling security holders on or prior to the date of this prospectus supplement and, to our knowledge, is true and correct as of the date of this prospectus supplement. However, the selling security holders may have sold, transferred or otherwise disposed of all or a portion of their LYONs since the date on which they provided the information regarding their LYONs.

The table of selling security holders contained on pages 50-53 of the prospectus dated July 9, 2002, as amended and supplemented through the date hereof, is hereby amended by and replaced in its entirety with the table set forth below.

Name	Aggregate Principal Amount at Maturity of LYONs that May Be Sold	Percentage of LYONs Outstanding	Number of Shares of Common Stock that May be Sold(1)	Percentage of Common Stock Outstanding(2)
Advent Convertible Master Cayman L.P.	\$ 21,850,000	1.81	157,059	*
Advent Convertible Master Fund	\$ 16,105,000	1.34	115,764	*
Allstate Insurance Company	\$ 1,000,000	*	7,188	*
Allstate Life Insurance Company	\$ 500,000	*	3,594	*
Alpha US Sub Fund 4, LLC	\$ 1,508,000	*	10,839	*
Argent Classic Convertible Arbitrage Fund (Bermuda) Ltd.	\$ 8,000,000	*	57,504	*
Argent Classic Convertible Arbitrage Fund L.P.	\$ 4,700,000	*	33,784	*
Argent LowLev Convertible Arbitrage Fund Ltd.	\$ 9,000,000	*	64,692	*
Argern LowLev Convertible Arbitrage Fund LLC	\$ 800,000	*	5,750	*

Bank Austria Cayman Islands, Ltd.	\$	3,500,000	*	25,158	*
Bank of America Pension Plan	\$	7,000,000	*	50,316	*
Black Diamond Capital I, Ltd.	\$	480,000	*	3,450	*
Black Diamond Convertible Offshore LDC	\$	3,195,000	*	22,965	*
Black Diamond Offshore Ltd.	\$	1,920,000	*	13,801	*
Canyon Capital Arbitrage Master Fund, Ltd.	\$	5,400,000	*	38,815	*
Canyon MAC 18, Ltd. (RMF)	\$	900,000	*	6,469	*
Canyon Value Realization Fund (Cayman), Ltd.	\$	8,100,000	*	58,223	*
Canyon Value Realization Fund, L.P.	\$	3,600,000	*	25,877	*
CC Lifescience, Ltd.	\$	2,000,000	*	14,376	*
CG Investments, LDC	\$	4,000,000	*	28,752	*
Clinton Convertible Managed Trading Account 1	\$	6,800,000	*	48,879	*
Clinton Multistrategy Master Fund, Ltd.	\$	16,600,000	1.38	119,322	*
Clinton Riverside Convertible Portfolio Limited	\$	33,850,000	2.81	243,317	*
Conseco Fund Group—Convertible Securities Fund	\$	500,000	*	3,594	*
Continental Assurance Company on behalf of its separate account (E)	\$	1,600,000	*	11,500	*
Continental Casualty Company	\$	7,400,000	*	53,191	*
Credit Suisse First Boston London Branch	\$	13,000,000	1.08	93,445	*
Deutsche Bank Securities Inc.	\$	144,240,000	11.97	1,036,811	*
Double Black Diamond Offshore LDC	\$	8,925,000	*	64,153	*
Gaia Offshore Master Fund Ltd.	\$	4,300,000	*	30,908	*
Global Bermuda Limited Partnership	\$	4,400,000	*	31,627	*
Goldman Sachs and Company	\$	11,500,000	*	82,663	*
HFR Convertible Arbitrage Account	\$	1,791,000	*	12,873	*
Highbridge International LLC	\$	55,000,000	4.56	395,345	*
JMG Convertible Investments, LP	\$	16,500,000	1.37	118,603	*
JMG Triton Offshore Fund, Ltd.	\$	10,500,000	*	75,475	*
KBC Financial Products (Cayman Islands) Limited	\$	100,000,000	8.30	718,810	*
KBC Financial Products USA Inc.	\$	8,950,000	*	64,333	*
Lakeshore International, Ltd.	\$	17,600,000	1.46	126,510	*
LDG Limited	\$	817,430	*	5,872	*
Lyxor	\$	4,278,000	*	30,750	*
Lyxor Master Fund	\$	700,000	*	5,031	*
Lyxor Master Fund Ref: Argent/LowLev CB	\$	2,500,000	*	17,970	*
Man Convertible Bond Master Fund, Ltd.	\$	12,880,000	1.07	92,582	*

Marathon Global Convertible Master Fund, Ltd.	\$	38,000,000	3.15	273,147	*
McMahan Securities Co., L.P.	\$	3,000,000	*	21,564	*
Merrill Lynch, Pierce, Fenner & Smith Incorporated	\$	58,635,000	4.87	421,474	*
Minnesota Power and Light	\$	363,000	*	2,609	*
Morgan Stanley & Co.	\$	15,000,000	1.25	107,821	*
Pacific Life Insurance Company	\$	1,000,000	*	7,188	*
People's Benefit Life Insurance Company	\$	20,000,000	1.66	143,762	*
Ram Trading LTD	\$	5,500,000	*	39,534	*
RCG Halifax Master Fund, Ltd.	\$	3,000,000	*	21,564	*
RCG Latitude Master Fund, Ltd.	\$	6,000,000	*	43,128	*
RCG Multi-Strategy, LP	\$	12,500,000	1.04	89,851	*
Royal Bank of Canada	\$	12,000,000	*	86,257	*
S.A.C. Capital Associates, LLC	\$	45,000,000	3.73	323,465	*
Salomon Brothers Asset Management	\$	45,500,000	3.77	327,058	*
Salomon Brothers International Limited	\$	75,000,000	6.22	539,108	*
Salomon Smith Barney Inc.	\$	10,000,000	*	71,881	*
St. Albans Partners Ltd.	\$	7,000,000	*	50,316	*
St. Thomas Trading, Ltd.	\$	22,120,000	1.84	159,000	*
Susquehanna Capital Group	\$	20,000,000	1.66	143,762	*
Tag Associates	\$	336,000	*	2,415	*
TD Securities (USA) Inc.	\$	3,000,000	*	21,564	*
TQA Master Fund, Ltd.	\$	15,495,670	1.29	111,379	*
TQA Master Plus Fund, Ltd.	\$	4,935,660	*	35,473	*
Tribeca Investments, LLC	\$	2,000,000	*	14,376	*
UBS AG London Branch	\$	81,660,000	6.78	586,980	*
UBS O'Connor LLC <i>f/b/o</i> UBS Global Equity Arbitrage Master Fund Ltd.	\$	10,000,000	*	71,881	*
UBS Warburg, LLC	\$	11,400,000	*	81,944	*
UFJ Investments Asia Limited	\$	8,000,000	*	57,504	*
Wachovia Securities International LTD	\$	15,000,000	1.25	107,821	*
Wachovia Securities, Inc.	\$	12,250,000	1.02	88,054	*
Wilmington Trust Company as Owner/Trustee for the Forrestal Funding Master Trust	\$	85,000,000	7.05	610,988	*
Worldwide Transactions Ltd.	\$	480,000	*	3,450	*
Zurich Institutional Benchmark Master Fund Ltd.	\$	1,200,000	*	8,625	*
Totals	\$	1,204,950,000	100.00%	8,661,301	5.61%

* Less than 1%

(1) Assumes conversion of all of the holder's LYONs at a conversion rate of 7.1881 shares of common stock per \$1,000 principal amount at maturity of the LYONs. This conversion rate is subject to adjustment, however, as described under the caption "Description of LYONs—Conversion Rights"

in the prospectus dated July 9, 2002, as amended and supplemented through the date hereof. As a result, the number of shares of common stock issuable upon conversion of the LYONs may increase or decrease in the future.

- (2) Calculated based on Rule 13d-3(d)(i) of the Exchange Act, using 154,390,900 shares of common stock outstanding as of December 31, 2002. In calculating this amount for each holder, we treated as outstanding the number of shares of common stock issuable upon conversion of all of that holder's LYONs, but we did not assume conversion of any other holder's LYONs.

See "Risk Factors" section beginning on page 10 of the prospectus dated July 9, 2002, as amended and supplemented through the date hereof, to read about factors you should consider before purchasing the LYONs or our common stock.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of the prospectus dated July 9, 2002 or any amendment or supplement thereto. Any representation to the contrary is a criminal offense.

The date of this prospectus supplement is May 10, 2004.

TM Trademark of Merrill Lynch & Co., Inc.

