

**Prospectus Supplement No. 4  
Dated May 20, 2004  
To Prospectus Dated July 23, 2003**

**Rigel Pharmaceuticals, Inc.  
9,583,331 Shares  
Common Stock**

This prospectus supplement supplements the prospectus, dated July 23, 2003, of Rigel Pharmaceuticals, Inc. relating to the offering and sale by selling stockholders of Rigel (or by donees, pledgees, transferees and other successors in interest that receive such shares as a gift, pledge, partnership distribution or other non-sale transfer) of 9,583,331 shares of our common stock. This prospectus supplement should be read in conjunction with the prospectus, and is qualified by reference to the prospectus, except to the extent that the information presented herein supercedes the information contained in the prospectus. The term "Selling Stockholders" as used in the prospectus shall be deemed to include the selling stockholders identified in the table below. 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 thereto.

**Investing in our securities involves a high degree of risk. See "Risk Factors" beginning on page 1 of the prospectus.**

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

This prospectus supplement is being filed in connection with the distribution of shares held by Frazier Healthcare IV, L.P., identified in the prospectus as a selling stockholder, to its partners. No additional shares of Rigel common stock are being offered for resale hereunder. The table appearing on pages 16 and 17 of the prospectus under the caption "Selling Stockholders" is supplemented and amended to include the following stockholders in addition to those identified in the prospectus:

Name and Address of Beneficial Owner***	Beneficial Ownership Before Offering		Shares Offered	Beneficial Ownership After Offering	
	Shares	Percent*		Shares	Percent*
Frazier Healthcare IV, L.P.(1) 601 Union Street, Suite 3200 Seattle, WA 98101	459,563	2.5%	459,563	0	**
(AGE) A.G. Edwards Private Equity Partners	1,350	**	1,350	0	**
(AGEQP) A.G. Edwards Private Equity Partners	2,066	**	2,066	0	**
Allianz Leben Private Equity Fund 2001	27,335	0.2%	27,335	0	**
Allianz Life Insurance Company of NA	15,661	**	15,661	0	**
Allianz Private Equity Partners GmbH	6,834	**	6,834	0	**
Avadis Anlagestiftung (Prev ABB)	2,278	**	2,278	0	**
Blumenthal, Jabe	1,139	**	1,139	0	**
Bowman Family Foundation	285	**	285	0	**
Bowman, Penny M.	228	**	228	0	**
Bristol-Meyers Northern Trust Co., Trustee for	5,695	**	5,695	0	**

Burgess, Ernest A.	114	**	114	0	**
CapCorp Investments N.V.	2,278	**	2,278	0	**
Cascade Investment, L.L.C.	8,542	**	8,542	0	**
Casemax LLC	1,139	**	1,139	0	**
Cohn, Gerald L. Revocable Trust	78	**	78	0	**
Commonwealth Penn State Employees' Retirement	34,169	0.2%	34,169	0	**
David Rockefeller & Grandchildren	2,847	**	2,847	0	**
Dziurzynski, Bogdan	1,139	**	1,139	0	**
Edgewood Management Co. Profit Sharing Plan	228	**	228	0	**
Every, Nathan R.	207	**	207	0	**
F&Co.	873	**	873	0	**
Ferguson, Raymond D.	285	**	285	0	**
Fireman's Fund Insurance Company	12,813	**	12,813	0	**
Frank Russell Capital/OMERS, L.P.	4,556	**	4,556	0	**
Frank Russell Global Private Equity	4,556	**	4,556	0	**
Frazier & Co., Inc.	1,139	**	1,139	0	**
Gilbert, Jon N.	259	**	259	0	**
GIT IV, L.L.C.	311	**	311	0	**
GW Skinner Trust No. 2	1,139	**	1,139	0	**
H&B Equity Ventures Fund I, LLC	1,139	**	1,139	0	**
Heron, Patrick J.	163	**	163	0	**
Highlands Financial Ltd.	5,695	**	5,695	0	**
Hodge, Thomas S.	259	**	259	0	**
Howard Hughes Medical Institute	22,779	0.1%	22,779	0	**
Immunex	3,417	**	3,417	0	**
Iowa Public Employees' Retirement Systems	22,779	0.1%	22,779	0	**
J. Paul Getty Trust	17,085	0.1%	17,085	0	**
JP Morgan Chase Manhattan Trustee, for Delta Airlines	11,390	**	11,390	0	**
JP Morgan Chase Manhattan Trustee, for First Plaza Grp	34,169	0.2%	34,169	0	**
Länsförsäkringar Liv Forsak. (Managed by Nordic Alternative Investment Advisors AB)	10,251	**	10,251	0	**
Lillard Partners	285	**	285	0	**
MacArthur, John D. and Katherine T. Foundation	5,695	**	5,695	0	**

Massachusetts Institute of Technology	7,973	**	7,973	0	**
Merrill Lynch Ventures LP 2001	11,390	**	11,390	0	**
MIT Private Equity Fund, L.P.	3,417	**	3,417	0	**
Moody, Trevor J.	259	**	259	0	**
Morse, John	1,139	**	1,139	0	**
Morse, Peter/Ellis, Marcia L.	1,139	**	1,139	0	**
Naini, Nader J.	582	**	582	0	**
Nell, Pat	20	**	20	0	**
Northwestern Mutual Life Insurance Co.	5,695	**	5,695	0	**
Overell, Robert W.	582	**	582	0	**
Penn Mutual Life Insurance Co.	5,695	**	5,695	0	**
Pension Private Equity K/S II	3,417	**	3,417	0	**
R.A. Investment Group, Inc.	8,542	**	8,542	0	**
R.D. Merrill Associates, II	1,139	**	1,139	0	**
Rauvola, Bridget S.	41	**	41	0	**
Rockefeller, David	1,139	**	1,139	0	**
Roush, G. James	5,695	**	5,695	0	**
Seidensticker, Robert and Sandra	285	**	285	0	**
Silverstein, Fred E.	291	**	291	0	**
State of Wisconsin Investment Board	11,390	**	11,390	0	**
State Street Bank, Trustee for JC Penney	8,542	**	8,542	0	**
State Street Bank, Trustee for US Airways	5,695	**	5,695	0	**
Step, Eugene	1,139	**	1,139	0	**
Thomas Weisel Global Growth Partners (A), L.P.	2,077	**	2,077	0	**
Thomas Weisel Global Growth Partners (B), L.P.	6,465	**	6,465	0	**
Topper, James N.	123	**	123	0	**
Traverse Park Ventures, LLC	399	**	399	0	**
Turnstone Ventures, LP	2,050	**	2,050	0	**
University of Puget Sound	2,847	**	2,847	0	**
University of Washington	8,542	**	8,542	0	**
Van Oppen, Peter	285	**	285	0	**
Vulcan Ventures, Inc.	8,542	**	8,542	0	**

Washington State Investment Board	45,559	0.3%	45,559	0	**
Washington State Investment Board	22,779	0.1%	22,779	0	**
Wolf, Scott J.	41	**	41	0	**
			919,127		

\* Percentage calculations based on 18,215,331 shares of our common stock that were issued and outstanding as of May 18, 2004.

\*\* Less than 0.1%

\*\*\* Addresses that are not listed are c/o Frazier Healthcare IV, L.P., 601 Union Street, Suite 3200, Seattle, WA 98101.

- (1) Alan D. Frazier, a director of Rigel since October 1997, is the president and controlling shareholder of Frazier and Company, Inc. (the managing member of the general partner of Frazier Healthcare II, L.P.) and is a managing member of FHM IV, LLC (the general partner of FHM IV, L.P., which is the general partner of both Frazier Healthcare IV, L.P. and Frazier Affiliates IV, L.P.). In addition to the entity set forth in the table above, Frazier Affiliates IV, L.P. is the beneficial owner of 2,333 shares of Rigel's common stock, Frazier and Company, Inc. is the beneficial owner of 1,682 shares of Rigel's common stock and Frazier Healthcare II, L.P. is the beneficial owner of 481,397 shares of Rigel's common stock. As a managing member, officer, partner or member of the foregoing funds, Mr. Frazier may be deemed to share voting and investment powers for the shares held by the foregoing funds. Mr. Frazier and the Frazier entities disclaim beneficial ownership of all such shares except to the extent of their proportionate pecuniary interest therein.

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