

OMB APPROVAL

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UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

SCHEDULE 13G

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

Rigel Pharmaceuticals, Inc.  
(Name of Issuer)

Common Shares  
(Title of Class of Securities)

766559603  
(CUSIP Number)

December 31, 2004  
(Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this  
Schedule is filed:

- Rule 13d-1(b)
- Rule 13d-1(c)
- Rule 13d-1(d)

\* 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 (however, see the Notes).

Potential persons who are to respond to the collection of information  
contained in this form are not required to respond unless the form displays  
a currently valid OMB control number. SEC 1745 (02-02)

CUSIP No. 766559603 13G

-----  
1 NAME OF REPORTING PERSONS  
IRS IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)

RS Investment Management Co. LLC

-----  
2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions)  
(a) / /  
(b) / /

-----  
3 SEC USE ONLY

-----  
4 CITIZENSHIP OR PLACE OF ORGANIZATION

Delaware

-----  
NUMBER OF 5 SOLE VOTING POWER  
SHARES -0-  
BENEFICIALLY -----  
OWNED BY 6 SHARED VOTING POWER  
EACH -1,256,280-  
REPORTING -----  
PERSON 7 SOLE DISPOSITIVE POWER  
WITH -0-

-----  
8 SHARED DISPOSITIVE POWER  
-1,256,280-

-----  
9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  
-1,256,280-

-----  
10 CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (See  
Instructions)

-----  
11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9  
6.4%

-----  
12 TYPE OF REPORTING PERSON (See Instructions)  
OO, HC  
-----

CUSIP No. 766559603 13G

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1 NAME OF REPORTING PERSONS  
IRS IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)

RS Investment Management, L.P.

-----  
2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions)

(a) / /  
(b) / /

-----  
3 SEC USE ONLY

-----  
4 CITIZENSHIP OR PLACE OF ORGANIZATION

California

-----  
NUMBER OF 5 SOLE VOTING POWER  
SHARES -0-

BENEFICIALLY OWNED BY 6 SHARED VOTING POWER  
EACH -1,254,180-

REPORTING PERSON 7 SOLE DISPOSITIVE POWER  
WITH -0-

-----  
8 SHARED DISPOSITIVE POWER  
-1,254,180-

-----  
9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  
-1,254,180-

-----  
10 CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (See  
Instructions)

-----  
11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9  
6.4%

-----  
12 TYPE OF REPORTING PERSON (See Instructions)  
PN, IA  
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1 NAME OF REPORTING PERSONS  
IRS IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)

George R. Hecht

-----

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions)

(a) / /

(b) / /

-----

3 SEC USE ONLY

-----

4 CITIZENSHIP OR PLACE OF ORGANIZATION

California

-----

NUMBER OF 5 SOLE VOTING POWER

SHARES -0-

BENEFICIALLY -----

OWNED BY 6 SHARED VOTING POWER

EACH -1,256,280-

REPORTING -----

PERSON 7 SOLE DISPOSITIVE POWER

WITH -0-

-----  
8 SHARED DISPOSITIVE POWER

-1,256,280-

-----

9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

-1,256,280-

-----

10 CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (See Instructions)

-----

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

6.4%

-----

12 TYPE OF REPORTING PERSON (See Instructions)

HC, IN

-----

ITEM 1.

(a) The name of the issuer is Rigel Pharmaceuticals, Inc.  
(the "Issuer").

(b) The principal executive office of the Issuer is located at:  
1180 Veterans Blvd., South San Francisco, CA 94080.

ITEM 2.

(a-c) See Annex I for information on the persons filing this  
statement (collectively, the "Filers")

(d) This statement relates to shares of common stock of the Issuer  
(the "Stock").

(e) The CUSIP number of the Stock is 766559603.

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ITEM 3. If this statement is filed pursuant to rules 240.13d-1(b) or 240.13d-2(b) or (c), check whether the person filing is a:

(a) \_\_\_ Broker or dealer registered under section 15 of the Act (15 U.S.C. 78o).

(b) \_\_\_ Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c).

(c) \_\_\_ Insurance company as defined in section 3(a)(19) of the Act (15 U.S.C. 78c).

(d) \_\_\_ Investment company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C. 80a-8).

(e) X\* An investment adviser in accordance with 240.13d-1(b)(1)(ii)(E). \*RS Investment Management, L.P. is a registered investment adviser.

(f) \_\_\_ An employee benefit plan or endowment fund in accordance with 240.13d-1(b)(1)(ii)(F).

(g) X\* A parent holding company or control person in accordance with 240.13d-1(b)(1)(ii)(G).

\*RS Investment Management Co. LLC is the general partner of RS Investment Management, L.P. George R. Hecht is a control person of RS Investment Management Co. LLC and RS Investment Management, L.P.

(h) \_\_\_ A savings association as defined in section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813).

(i) \_\_\_ A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3).

(j) \_\_\_ Group, in accordance with rule 240.13d-1(b)(1)(ii)(J)

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ITEM 4. OWNERSHIP

See Items 5-9 and 11 on the cover page for each Filer.

ITEM 5. OWNERSHIP OF FIVE PERCENT OR LESS OF A CLASS

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following /\_\_\_/.

ITEM 6. OWNERSHIP OF MORE THAN FIVE PERCENT ON BEHALF OF ANOTHER PERSON

RS Investment Management Co. LLC is the parent company of registered investment advisers whose clients have the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, the Stock. No individual client's holdings of the Stock are more than five percent of the outstanding Stock.

RS Investment Management, L.P. is a registered investment adviser and a managing member of registered investment advisers. RS Investment Management Co. LLC is the General Partner of RS Investment Management, L.P. George R. Hecht is a control person of RS Investment Management Co. LLC and RS Investment Management, L.P.

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ITEM 7. IDENTIFICATION AND CLASSIFICATION OF THE SUBSIDIARY WHICH ACQUIRED THE SECURITY BEING REPORTED ON BY THE PARENT HOLDING COMPANY

Not applicable.

ITEM 8. IDENTIFICATION AND CLASSIFICATION OF MEMBERS OF THE GROUP

Not applicable.

ITEM 9. NOTICE OF DISSOLUTION OF GROUP

Not applicable.

ITEM 10. CERTIFICATION

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were acquired and are held in the ordinary course of business and were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Dated: February 14, 2005

RS INVESTMENT MANAGEMENT CO. LLC

By: \_\_\_\_\_  
Terry R. Otton  
Chief Operating Officer

RS INVESTMENT MANAGEMENT, L.P.

By: \_\_\_\_\_  
Terry R. Otton  
Chief Operating Officer

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GEORGE R. HECHT

\_\_\_\_\_  
George R. Hecht

EXHIBIT A

JOINT FILING AGREEMENT

The undersigned hereby agree that they are filing this statement jointly pursuant to Rule 13d-1(f)(1). Each of them is responsible for the timely filing of the Schedule 13G and any amendments thereto, and for the completeness and accuracy of the information concerning such person contained therein; but none of them is responsible for the completeness or accuracy of the information concerning the other persons making the filing, unless such person knows or has reason to believe that such information is accurate.

Dated: February 14, 2005

RS INVESTMENT MANAGEMENT CO. LLC

By: \_\_\_\_\_  
Terry R. Otton  
Chief Operating Officer

RS INVESTMENT MANAGEMENT, L.P.

By: \_\_\_\_\_  
Terry R. Otton  
Chief Operating Officer

GEORGE R. HECHT

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George R. Hecht

Annex I

The filers are:

- I.
  - (a) RS Investment Management Co. LLC is a Delaware Limited Liability Company.
  - (b) holding company
  
- II.
  - (a) RS Investment Management, L.P. is a California Limited Partnership.
  - (b) registered investment adviser
  
- III.
  - (a) George R. Hecht is a control person of RS Investment Management Co. LLC and RS Investment Management, L.P.
  - (b) individual