

FORM 5

ANNUAL STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934,  
Section 17(a) of the Public Utility Holding Company Act of 1935 or  
Section 30(f) of the Investment Company Act of 1940

Check this box if no longer subject of Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

Form 3 Holdings Reported

Form 4 Transactions Reported

1. Name and Address of Reporting Person\*

Segal, Robert  
-----  
(Last) (First) (Middle)

350 South Main Street, Suite 307  
-----  
(Street)

Doylestown, PA 18901  
-----  
(City) (State) (Zip)

2. Issuer Name and Ticker or Trading Symbol

Discovery Laboratories, Inc., ("Discovery")  
DSCO

3. IRS Identification Number of Reporting Person, if an Entity (Voluntary)

4. Statement for Month/Year

December 2001

5. If Amendment, Date of Original (Month/Year)

6. Relationship of Reporting Person to Issuer  
(Check all applicable)

Director  10% Owner  
 Officer (give title below)  Other (specify below)

Vice President

7. Individual or Joint/Group Filing (Check Applicable Line)

Form filed by One Reporting Person  
 Form filed by More than One Reporting Person

\* If the Form is filed by more than one Reporting Person, see Instruction 4(b)(v).

Table I -- Non-Derivative Securities Acquired, Disposed of,  
or Beneficially Owned

1. Title of Security (Instr. 3)	2. Transaction Date (mm/dd/yy)	3. Transaction Code (Instr. 8)	4. Security Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)		5. Amount of Securities Beneficially Owned at End of Issuer's Fiscal Year (Instr. 3 and 4)	6. Owner- ship Form: Direct (D) or Indirect (I) (Instr.4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
			Amount	(A) or (D) Price			

-----  
-----  
-----  
-----  
-----  
-----  
-----  
-----  
=====

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly

Table II -- Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	4. Transaction Code (Instr. 8)	5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)	6. Date Exercisable and Expiration Date (Month/Day/Year)	7. Title and Amount of Underlying Securities (Instr. 3 and 4)	8. Price of Derivative Security (Instr. 5)	9. Number of Derivative Securities Beneficially Owned at End of Year (Instr. 4)	10. Ownership of Derivative Security: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Direct or Indirect Ownership (Instr. 4)
Employee Stock Option	\$4.09	5/10/01	A	A	5/10/01(1) 5/09/11	Common Stock 15,000	\$4.09	161,000	D	
Employee Stock Option	\$2.10	9/21/01	A	A	9/21/01(2) 9/20/11	Common Stock 55,000	\$2.10	161,000	D	

Explanation of Responses:

- (1) This employee stock option shall become vested in three equal installments on each of the first, second and third anniversary of the date of grant.
- (2) This employee stock option is immediately exercisable and vests 25% on the date of the grant. The remaining 75% of the option shares become vested in three equal annual installments beginning with the first year anniversary of the grant.

/s/ Robert Segal 2/13/02  
 -----  
 \*\*Signature of Reporting Person Date

\*\* Intentional misstatements or omissions of facts constitute Federal Criminal Violations.  
 See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space provided is insufficient, see Instruction 6 for procedure.