

# FORM 5

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

OMB APPROVAL

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### ANNUAL STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of  
the Investment Company Act of 1940

- Check this box if no longer  
subject to 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* GAITHER JAMES C		2. Issuer Name and Ticker or Trading Symbol THRESHOLD PHARMACEUTICALS INC [THLD]		5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input type="checkbox"/> Director <input checked="" type="checkbox"/> 10% Owner <input type="checkbox"/> Officer (give title below) <input type="checkbox"/> Other (specify below)						
(Last)	(First)	(Middle)	3. Statement for Issuer's Fiscal Year Ended (Month/Day/Year) 12/31/2009		6. Individual or Joint/Group Reporting (check applicable line) <input checked="" type="checkbox"/> Form Filed by One Reporting Person <input type="checkbox"/> Form Filed by More than One Reporting Person					
755 PAGE MILL ROAD, SUITE A-200			4. If Amendment, Date Original Filed(Month/Day/Year)							
(Street)										
PALO ALTO, CA 94304-1005										
(City)			(State)		(Zip)					
<b>Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned</b>										
1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)	4. Securities 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. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)	
				Amount	(A) or (D)	Price				
Common Stock	03/31/2009		G	0	(1)	D	\$ 0	32,615 (1)	I	By Ltd Partnership (2)
Common Stock								6,329	I	By Trust (3)

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

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form are not required to respond unless the form displays a currently  
valid OMB control number.** SEC 2270 (9-02)

**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)	3A. Deemed Execution Date, if any (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 Issuer's Fiscal Year (Instr. 4)	10. Ownership Form of Derivative Security: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)
						Date Exercisable	Expiration Date					
					(A)	(D)						

## Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
GAITHER JAMES C 755 PAGE MILL ROAD, SUITE A-200 PALO ALTO, CA 94304-1005		X		

## Signatures

Robert Yin, by power of attorney	02/01/2010
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## Explanation of Responses:

- \* If the form is filed by more than one reporting person, see Instruction 4(b)(v).
- \*\* Intentional misstatements or omissions of facts constitute Federal Criminal Violations. *See* 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).
- (1) Represents gift of limited partnership interests in a limited partnership to other limited partners. The reporting person disclaims beneficial ownership of the shares held by the limited partnership except as to the reporting person's pecuniary interest therein.
- (2) Shares held by a limited partnership of which the reporting person is the General Partner. The reporting person disclaims beneficial ownership in these shares except as to the reporting person's pecuniary interest therein.
- (3) Shares held by a trust of which the reporting person is the trustee. The reporting person disclaims beneficial ownership in these shares except as to the reporting person's pecuniary interest therein.

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

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