

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 13G/A
(Rule 13d-102)

**INFORMATION TO BE INCLUDED IN STATEMENTS FILED PURSUANT
TO RULES 13d-1(b), (c) AND (d) AND AMENDMENTS THERETO FILED
PURSUANT TO RULE 13d-2(b)
(Amendment No. 2)***

Intermolecular, Inc.
(Name of Issuer)

Common Stock
(Title of Class of Securities)

45882D109
(CUSIP Number)

December 31, 2016
(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).

SCHEDULE 13G/A2

CUSIP No.	45882D109	Page 2 of 5 Pages
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1	NAME OF REPORTING PERSON Lloyd I. Miller, III		
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*		(a) <input type="checkbox"/> (b) <input type="checkbox"/>
3	SEC USE ONLY		
4	CITIZENSHIP OR PLACE OF ORGANIZATION United States		
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5	SOLE VOTING POWER 4,375,998	
	6	SHARED VOTING POWER 0	
	7	SOLE DISPOSITIVE POWER 4,375,998	
	8	SHARED DISPOSITIVE POWER 0	
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 4,375,998		
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES		<input type="checkbox"/>
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 8.8% ¹		
12	TYPE OF REPORTING PERSON IN-OO**		

** See Item 4.

¹ The percentage reported in this Schedule 13G/A is based upon 49,531,028 shares of Common Stock outstanding according to the Form 10-Q filed by the Issuer on November 2, 2016.

- Item 1(a). Name of Issuer: Intermolecular, Inc.
- Item 1(b). Address of Issuers's Principal Executive Offices: 3011 N. First Street
San Jose, California 95134
- Item 2(a). Name of Person Filing: Lloyd I. Miller, III
- Item 2(b). Address of Principal Business Office or, if None, Residence: 3300 South Dixie Highway
Suite 1-365
West Palm Beach, Florida 33405
- Item 2(c). Citizenship: U.S.A.
- Item 2(d). Title of Class of Securities: Common Stock
- Item 2(e). CUSIP Number: 45882D109
- Item 3. IF THIS STATEMENT IS FILED PURSUANT TO RULE 13d-1(b) OR 13d-2(b) or (c), CHECK WHETHER THE PERSON FILING IS A:

Not Applicable, this statement is filed pursuant to 13d-1(c)
- Item 4. OWNERSHIP: Mr. Miller has sole voting and dispositive power with respect to 4,375,998 of the reported securities as (i) manager of a limited liability company that is the adviser to certain trusts, (ii) manager of a limited liability company that is the general partner of certain limited partnerships, (iii) manager of a limited liability company, and (iv) an individual.
- (a) 4,375,998
 - (b) 8.8%
 - (c) (i) sole voting power: 4,375,998
(ii) shared voting power: 0
(iii) sole dispositive power: 4,375,998
(iv) shared dispositive power: 0
- Item 5. OWNERSHIP OF FIVE PERCENT OR LESS OF A CLASS:

Not Applicable
- Item 6. OWNERSHIP OF MORE THAN FIVE PERCENT ON BEHALF OF ANOTHER PERSON:

Other than shares held directly by Lloyd I. Miller, III, persons other than Lloyd I. Miller, III have the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, the reported securities.
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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 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: January 30, 2017

/s/ Lloyd I. Miller, III
Lloyd I. Miller, III
