Chiang Tony P. Form 3 November 17, 2011

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

OMB APPROVAL

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INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF

SECURITIES

30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting 2. Date of Event Requiring 3. Issuer Name and Ticker or Trading Symbol Person * Statement INTERMOLECULAR INC [IMI] Chiang Tony P. (Month/Day/Year) 11/17/2011 (Last) (First) (Middle) 4. Relationship of Reporting 5. If Amendment, Date Original Person(s) to Issuer Filed(Month/Day/Year) INTERMOLECULAR. (Check all applicable) INC., Â 3011 NORTH FIRST STREET 10% Owner Director (Street) _X__ Officer Other 6. Individual or Joint/Group (give title below) (specify below) Filing(Check Applicable Line) Chief Technology Officer _X_ Form filed by One Reporting Person SAN JOSE, CAÂ 95134-2004 Form filed by More than One

(State)

Table I - Non-Derivative Securities Beneficially Owned

1. Title of Security (Instr. 4)

(City)

2. Amount of Securities Beneficially Owned (Instr. 4)

3. Ownership Form: Direct (D)

or Indirect (I) (Instr. 5)

4. Nature of Indirect Beneficial

Reporting Person

Ownership (Instr. 5)

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

(Zip)

SEC 1473 (7-02)

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

1. Title of Derivative Security 2. Date Exercisable and 3. Title and Amount of 4. 5. 6. Nature of Indirect (Instr. 4) **Expiration Date** Securities Underlying Conversion Ownership Beneficial (Month/Day/Year) Derivative Security Ownership or Exercise Form of Derivative (Instr. 4) Price of (Instr. 5) Security: Derivative Title Amount or Expiration Security Direct (D) Number of Exercisable Date

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				Shares		or Indirect (I) (Instr. 5)	
Stock Option (right to buy)	(1)	06/14/2015	Common Stock	1,000,000	\$ 0.1	D	Â
Stock Option (right to buy)	(1)	06/14/2015	Common Stock	125,000	\$ 0.1	D	Â
Stock Option (right to buy)	(2)	09/04/2017	Common Stock	100,000	\$ 1.66	D	Â
Stock Option (right to buy)	(3)	01/19/2019	Common Stock	200,000	\$ 2	D	Â
Stock Option (right to buy)	(4)	02/03/2020	Common Stock	187,500	\$ 2.66	D	Â
Stock Option (right to buy)	(5)	03/30/2021	Common Stock	37,500	\$ 6.2	D	Â

Reporting Owners

Reporting Owner Name / Address	Relationships					
FB	Director	10% Owner	Officer	Other		
Chiang Tony P. INTERMOLECULAR, INC. 3011 NORTH FIRST STREET SAN JOSE, CA 95134-2004	Â	Â	Chief Technology Officer	Â		

Signatures

/s/ Tony P.
Chiang

**Signature of Reporting Person

Date

Explanation of Responses:

- * If the form is filed by more than one reporting person, see Instruction 5(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).
 - The option was immediately exercisable in full on June 15, 2005; however, the shares vest pursuant to the following schedule:

 Twenty-Five Percent (25%) of the shares subject to the option vest on the first anniversary measured from May 9, 2005 (the "Vesting Commencement Data") and the remaining shares subject to the option vest in 36 successive, equal monthly installments thereafter on
- (1) Commencement Date") and the remaining shares subject to the option vest in 36 successive, equal monthly installments thereafter on each monthly anniversary of the Vesting Commencement Date, subject to the Reporting Person's continued employment or service relationship with the Issuer on each such vesting date.
 - The option was immediately exercisable in full on September 5, 2007; however, the shares vest pursuant to the following schedule:

 Twenty-Five Percent (25%) of the shares subject to the option vest on the first anniversary measured from July 9, 2007 (the "Vesting Commencement Data") and the remaining shares subject to the option vest in 36 successive, equal monthly installments thereofter on
- (2) Commencement Date") and the remaining shares subject to the option vest in 36 successive, equal monthly installments thereafter on each monthly anniversary of the Vesting Commencement Date, subject to the Reporting Person's continued employment or service relationship with the Issuer on each such vesting date.
- The shares vest pursuant to the following schedule: Twenty-Five Percent (25%) of the shares subject to the option vest on the first anniversary measured from January 20, 2009 (the "Vesting Commencement Date") and the remaining shares subject to the option vest in 36 successive, equal monthly installments thereafter on each monthly anniversary of the Vesting Commencement Date, subject to the Reporting Person's continued employment or service relationship with the Issuer on each such vesting date.

Reporting Owners 2

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- The shares vest pursuant to the following schedule: Twenty-Five Percent (25%) of the shares subject to the option vest on the first anniversary measured from February 1, 2010 (the "Vesting Commencement Date") and the remaining shares subject to the option vest in 36 successive, equal monthly installments thereafter on each monthly anniversary of the Vesting Commencement Date, subject to the Reporting Person's continued employment or service relationship with the Issuer on each such vesting date.
- The shares vest pursuant to the following schedule: Twenty-Five Percent (25%) of the shares subject to the option vest on the first anniversary measured from February 2, 2011 (the "Vesting Commencement Date") and the remaining shares subject to the option vest in 36 successive, equal monthly installments thereafter on each monthly anniversary of the Vesting Commencement Date, subject to the Reporting Person's continued employment or service relationship with the Issuer on each such vesting date.

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