

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM S-8

**REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933**

INTERMOLECULAR, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of
incorporation or organization)

20-1616267

(I.R.S. Employer
Identification Number)

**3011 N. First Street
San Jose, CA 95134**

(Address of Principal Executive Offices) (Zip Code)

Intermolecular, Inc. 2011 Incentive Award Plan
(Full Title of the Plan)

**Bill Roeschlein
Chief Financial Officer
Intermolecular, Inc.
3011 N. First Street
San Jose, CA 95134**

(Name and address of agent for service)

(408) 582-5700

(Telephone number, including area code, of agent for service)

Copies to:

Patrick A. Pohlen
Latham & Watkins LLP
140 Scott Drive
Menlo Park, California 94025
Telephone: (650) 328-4600
Facsimile: (650) 463-2600

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Accelerated filer

Non-accelerated Filer

Smaller reporting company

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

CALCULATION OF REGISTRATION FEE

Title of Securities to be Registered	Amount to be Registered(1)	Proposed Maximum Offering Price Per Share	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee(4)
Common Stock, par value \$0.001 per share	2,230,637 (2)	\$1.47(3)	\$3,279,036.39	\$408.24

(1) Pursuant to Rule 416(a) under the Securities Act of 1933, as amended (the "Securities Act"), this registration statement shall also cover any additional shares of the Registrant's common stock that become issuable under the Registrant's 2011 Incentive Award Plan (the "2011 Plan") by reason of any stock dividend, stock split, recapitalization or similar transaction effected without the Registrant's receipt of consideration which would increase the number of outstanding shares of common stock.

(2) Represents 2,230,637 additional shares of the Registrant's common stock reserved for future issuance under the 2011 Plan.

(3) This estimate is made pursuant to Rules 457(c) and 457(h) of the Securities Act for purposes of calculating the registration fee. The Proposed Maximum Offering Price Per Share is \$1.47, which is the average of the high and low prices for the Registrant's common stock as reported on the NASDAQ Global Select Market on February 23, 2018.

(4) The registration fee for this 2018 S-8 Filing is \$408.24.

**Proposed sale to take place as soon after the effective date of the
registration statement as awards under the plan are exercised and/or vest.
REGISTRATION OF ADDITIONAL SECURITIES**

(i) On November 23, 2011, the Registrant filed with the Securities and Exchange Commission (the "SEC") a Registration Statement on Form S-8 (File No. 333-178154) relating to shares of the Registrant's common stock, par value \$0.001 per share, to be offered and sold under the 2011 Plan.

(ii) The number of shares of the Registrant's common stock reserved for issuance or transfer pursuant to awards issued under the 2011 Plan automatically increased on January 1, 2012 pursuant to the terms of the 2011 Plan. The Registrant registered the additional 1,899,862 shares issuable under the 2011 Plan on a Registration Statement on Form S-8 (File No. 333-180169) filed with the SEC on March 15, 2012.

(iii) The number of shares of the Registrant's common stock reserved for issuance or transfer pursuant to awards issued under the 2011 Plan automatically increased on January 1, 2013 pursuant to the terms of the 2011 Plan. The Registrant registered the additional 1,982,113 shares issuable under the 2011 Plan on a Registration Statement on Form S-8 (File No. 333-187017) filed with the SEC on March 4, 2013.

(iv) The number of shares of the Registrant's common stock reserved for issuance or transfer pursuant to awards issued under the 2011 Plan automatically increased on January 1, 2014 pursuant to the terms of the 2011 Plan. The Registrant registered the additional 2,091,886 shares issuable under the 2011 Plan on a Registration Statement on Form S-8 (File No. 333-194464) filed with the SEC on March 10, 2014.

(v) The number of shares of the Registrant's common stock reserved for issuance or transfer pursuant to awards issued under the 2011 Plan automatically increased on January 1, 2015 pursuant to the terms of the 2011 Plan. The Registrant registered the additional 2,142,636 shares issuable under the 2011 Plan on a Registration Statement on Form S-8 (File No. 333-202369) filed with the SEC on February 27, 2015.

(vi) The number of shares of the Registrant's common stock reserved for issuance or transfer pursuant to awards issued under the 2011 Plan automatically increased on January 1, 2016 pursuant to the terms of the 2011 Plan. The Registrant registered the additional 2,209,152 shares issuable under the 2011 Plan on a Registration Statement on Form S-8 (File No. 333-210427) filed with the SEC on March 28, 2016.

(vii) The number of shares of the Registrant's common stock reserved for issuance or transfer pursuant to awards issued under the 2011 Plan automatically increased on January 1, 2017 pursuant to the terms of the 2011 Plan, none of which have been issued as of the date of this Registration Statement. The Registrant is hereby registering the additional 2,228,109 shares issuable under the 2011 Plan.

(viii) The number of shares of the Registrant's common stock reserved for issuance or transfer pursuant to awards issued under the 2011 Plan automatically increased on January 1, 2018 pursuant to the terms of the 2011 Plan, none of which have been issued as of the date of this Registration Statement. The Registrant is hereby registering the additional 2,230,637 shares issuable under the 2011 Plan.

Pursuant to General Instruction E of Form S-8, the contents of such prior Registration Statements are incorporated by reference in this Registration Statement, with such modifications as set forth below.

Item 8. Exhibits.

<u>Exhibit No.</u>	<u>Description of Exhibits</u>
4.1	Amended and Restated Certificate of Incorporation of Intermolecular, Inc. (1)
4.2	Amended and Restated Bylaws of Intermolecular, Inc. (2)
4.3	Specimen Common Stock Certificate (3)
4.4	Intermolecular, Inc. 2011 Incentive Award Plan. (4)
4.5	Form of Stock Option Grant Notice and Stock Option Agreement under the 2011 Incentive Award Plan (5)
4.6	Form of Restricted Stock Award Grant Notice and Restricted Stock Award Agreement under the 2011 Incentive Award Plan. (6)
4.7	Form of Restricted Stock Unit Award Grant Notice and Restricted Stock Unit Award Agreement under the 2011 Incentive Award Plan (7)
5.1	Opinion of Latham & Watkins, LLP
23.1	Consent Latham & Watkins, LLP (included in Exhibit 5.1)
23.2	Consent of Armanino LLP, Independent Registered Public Accounting Firm
24.1	Power of Attorney (included in the signature page to this registration statement)

- (1) Previously filed as Exhibit 3.1 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2011, filed on March 16, 2012, and incorporated by reference herein.
- (2) Previously filed as Exhibit 3.2 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2011, filed on March 16, 2012, and incorporated by reference herein.
- (3) Previously filed as Exhibit 4.1 to the Registrant's Registration Statement on Form S-1, as amended, originally filed with the SEC on November 7, 2011 (File No. 333-175877), and incorporated by reference herein.
- (4) Previously filed as Exhibit 10.14a to the Registrant's Registration Statement on Form S-1, as amended, originally filed with the SEC on November 7, 2011 (File No. 333-175877), and incorporated by reference herein.
- (5) Previously filed as Exhibit 10.14b to the Registrant's Registration Statement on Form S-1, as amended, originally filed with the SEC on November 7, 2011 (File No. 333-175877), and incorporated by reference herein.
- (6) Previously filed as Exhibit 10.14c to the Registrant's Registration Statement on Form S-1, as amended, originally filed with the SEC on November 7, 2011 (File No. 333-175877), and incorporated by reference herein.
- (7) Previously filed as Exhibit 10.14d to the Registrant's Registration Statement on Form S-1, as amended, originally filed with the SEC on November 7, 2011 (File No. 333-175877), and incorporated by reference herein.
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POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below does hereby constitute and appoint Christian F. Kramer and Bill Roeschlein, and each of them, with full power of substitution and full power to act without the other, his or her true and lawful attorney-in-fact and agent to act for him or her in his or her name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement, and to file this registration statement, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in order to effectuate the same as fully, to all intents and purposes, as they or he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the date indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ BRUCE M. McWILLIAMS</u> Bruce M. McWilliams	Chairman of the Board of Directors	March 2, 2018
<u>/s/ CHRISTIAN F. KRAMER</u> Christian F. Kramer	President and Chief Executive Officer (Principal Executive Officer), Director	March 2, 2018
<u>/s/ BILL ROESCHLEIN</u> Bill Roeschlein	Chief Financial Officer (Principal Financial and Accounting Officer)	March 2, 2018
<u>/s/ MARVIN D. BURKETT</u> Marvin D. Burkett	Director	March 2, 2018
<u>/s/ IRWIN FEDERMAN</u> Irwin Federman	Director	March 2, 2018
<u>/s/ GEORGE M. SCALISE</u> George M. Scalise	Director	March 2, 2018
<u>/s/ KENNETH H. TRAUB</u> Kenneth H. Traub	Director	March 2, 2018
<u>/s/ JONATHAN B. SCHULTZ</u> Jonathan B. Schultz	Director	March 2, 2018
<u>/s/ ADAM SCHEER</u> Adam Scheer	Director	March 2, 2018
<u>/s/ MATTHEW S. FURNAS</u> Matthew S. Furnas	Director	March 2, 2018

EXHIBIT 5.1

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FIRM / AFFILIATE OFFICES
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Los Angeles Tokyo
Madrid Washington, D.C.
Milan

LATHAM & WATKINS LLP

March 2, 2018

Intermolecular, Inc.
3011 North First Street
San Jose, CA 95134

Re: Registration Statement on Form S-8; 2,230,637 shares of Common Stock, par value \$0.001 per share

Ladies and Gentlemen:

We have acted as special counsel to Intermolecular, Inc., a Delaware corporation (the “*Company*”), in connection with the registration by the Company of 2,230,637 shares of Common Stock of the Company, par value \$0.001 per share (the “*Shares*”), issuable under the Company’s 2011 Incentive Award Plan (the “*Plan*”). The Shares are included in a registration statement on Form S-8 under the Securities Act of 1933, as amended (the “*Act*”), filed with the Securities and Exchange Commission (the “*Commission*”) on March 2, 2018 (the “*Registration Statement*”). This opinion is being furnished in connection with the requirements of Item 601(b) (5) of Regulation S-K under the Act, and no opinion is expressed herein as to any matter pertaining to the contents of the Registration Statement or the related prospectus, other than as expressly stated herein with respect to the issue of the Shares.

As such counsel, we have examined such matters of fact and questions of law as we have considered appropriate for purposes of this letter. With your consent, we have relied upon certificates and other assurances of officers of the Company and others as to factual matters without having independently verified such factual matters. We are opining herein only as to the General Corporation Law of the State of Delaware, and we express no opinion with respect to any other laws.

Subject to the foregoing and the other matters set forth herein, it is our opinion that, as of the date hereof, when the Shares shall have been duly registered on the books of the transfer agent and registrar therefor in the name or on behalf of the purchasers thereof, and have been issued by the Company against payment therefor (not less than par value) in the circumstances contemplated by

the Plan, assuming in each case that the individual issuances, grants or awards under the Plan are duly authorized by all necessary corporate action and duly issued, granted or

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LATHAM & WATKINS LLP

awarded and exercised in accordance with the requirements of law and the Plan (and the agreements and awards duly adopted thereunder and in accordance therewith), the issuance and sale of the Shares will have been duly authorized by all necessary corporate action of the Company, and the Shares will be validly issued, fully paid and nonassessable. In rendering the foregoing opinion, we have assumed that the Company will comply with all applicable notice requirements regarding uncertificated shares provided in the General Corporation Law of the State of Delaware.

This opinion is for your benefit in connection with the Registration Statement and may be relied upon by you and by persons entitled to rely upon it pursuant to the applicable provisions of the Act. We consent to your filing this opinion as an exhibit to the Registration Statement. In giving such consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the Commission thereunder.

Very truly yours,

/s/ Latham & Watkins LLP

Consent of Independent Registered Public Accounting Firm

The Board of Directors

Intermolecular, Inc.:

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of our report dated March 2, 2018 relating to the consolidated financial statements, which appears in Intermolecular Inc.'s Annual Report on Form 10-K for the two years ended December 31, 2017, filed with the Securities and Exchange Commission.

/s/ Armanino LLP

San Ramon, California

March 2, 2018