UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM S-8 REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

INTUITIVE SURGICAL, INC.

(Exact Name of Registrant as Specified in Its Charter)

Delav (State of Inco		77-0416458 (I.R.S. Employer Identification No.)	
	1020 Kifer Road Sunnyvale, California 94086 (Address of Principal Executive Offices includ		
	DED AND RESTATED INTUITIVE SURGICAL, INC. 2000 E MENDED AND RESTATED INTUITIVE SURGICAL, INC. (Full Title of the Plans)		
Gary S. Guthart President and Chief Executive Officer Intuitive Surgical, Inc. 1020 Kifer Road Sunnyvale, California 94086 (408) 523-2100		Copy to: Alan C. Mendelson, Esq. Latham & Watkins LLP 140 Scott Drive Menlo Park, California 94025 (650) 328-4600 ing Area Code for Agent for Service)	
1020 Ki Sunnyvale, C	alifornia 94086 23-2100	Menlo Park, California (650) 328-4600	94025
1020 Ki Sunnyvale, C (408) 5 Indicate by check mark wh	alifornia 94086	Menlo Park, California (650) 328-4600 uding Area Code for Agent for Service) accelerated filer, or a smaller reporting company. S	
1020 Ki Sunnyvale, C (408) 5 Indicate by check mark wh	alifornia 94086 i23-2100 (Name, Address, Including Zip Code, and Telephone Number, Include the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, and accelerated filer, accelerated filer, accelerated filer, accelerated filer, accelerated filer, accelerated filer, accelerated filerated	Menlo Park, California (650) 328-4600 uding Area Code for Agent for Service) accelerated filer, or a smaller reporting company. S	
1020 Ki Sunnyvale, C (408) 5 Indicate by check mark wh "large accelerated filer," "accele	alifornia 94086 i23-2100 (Name, Address, Including Zip Code, and Telephone Number, Include the registrant is a large accelerated filer, an accelerated filer, a non-acceptated filer and "smaller reporting company" in Rule 12b-2 of the Exchange and "	Menlo Park, California (650) 328-4600 uding Area Code for Agent for Service) accelerated filer, or a smaller reporting company. S nge Act.	ee the definitions o

CALCULATION OF REGISTRATION FEE

financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. \Box

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
Common Stock, par value \$0.001 per share	4,800,000 (2)	\$353.78 (3)	\$1,698,144,000 (3)	\$211,418.93

- This Registration Statement shall also cover any additional shares of common stock which become issuable under the Amended and Restated Intuitive Surgical, Inc. 2010 Incentive Award Plan (the "Amended 2010 Plan") and the Amended and Restated Intuitive Surgical, Inc. 2000 Employee Stock Purchase Plan (the "ESPP") by reason of any stock dividend, stock split, recapitalization, or other similar transaction effected without the receipt of consideration, which results in an increase in the number of outstanding shares of the Registrant's common stock.
- Represents (i) 3,300,000 shares available for future issuance under the Amended 2010 Plan and (ii) 1,500,000 shares available for future issuance under the ESPP. The numbers of shares stated give effect to the 3-for-1 stock split that was distributed on October 5, 2017, to stockholders of record as of September 29, 2017.

 Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(c) and Rule 457(h) of the Securities Act of 1933, as amended, for the 4,800,000 shares registered hereunder (based on the
- (3) average of the high (\$357.56) and low (\$350.00) prices for the Registrant's common stock reported by The NASDAQ Global Select Market on October 19, 2017).

REGISTRATION OF ADDITIONAL SECURITIES

Intuitive Surgical, Inc. (the "Company") filed with the Securities and Exchange Commission the following Registration Statements on Form S-8 relating to shares of the Company's common stock, par value \$0.001 per share, to be offered and sold under the Company's Amended and Restated Intuitive Surgical, Inc. 2010 Incentive Award Plan (the "Amended 2010 Plan") and the Amended and Restated 2000 Employee Stock Purchase Plan (the "ESPP" and together with the Amended 2010 Plan, the "Plans") and the contents of such prior Registration Statements are incorporated by reference in this Registration Statement: Registration Statement on Form S-8 filed May 2, 2016 (File No. 333-211064), Registration Statement on Form S-8 filed May 1, 2015 (File No. 333-203793), Registration Statement on Form S-8 filed June 17, 2013 (File No. 333-189399), Registration Statement on Form S-8 filed April 20, 2012 (File No. 333-180863), Registration Statement on Form S-8 filed May 14, 2010 (File No. 333-166833), Registration Statement on Form S-8 filed May 14, 2009 (File No. 333-159228), Registration Statement on Form S-8 filed July 25, 2008 (File No. 333-152558), Registration Statement on Form S-8 filed June 14, 2006 (File No. 333-135004), Registration Statement on Form S-8 filed June 14, 2006 (File No. 333-135004), Registration Statement on Form S-8 filed August 3, 2005 (File No. 333-127162), Registration Statement on Form S-8 filed June 15, 2004 (File No. 333-1699), Registration Statement on Form S-8 filed September 20, 2002 (File No. 333-43558). The Company is hereby registering an aggregate of 4,800,000 additional shares issuable under the Plans, consisting of 3,300,000 shares under the Amended 2010 Plan and 1,500,000 under the ESPP, none of which have been issued as of the date of this Registration Statement. The numbers of shares stated give effect to the 3-for-1 stock split that were distributed on October 5, 2017, to stockholders of record as of September 29, 2017.

Item 8. Exhibits.

Exhibit No.	<u>Description</u>
4.1	Amended and Restated Intuitive Surgical, Inc. 2000 Employee Stock Purchase Plan (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on April 26, 2017)
	Amended and Restated Intuitive Surgical, Inc. 2010 Incentive Award Plan (incorporated by reference to Exhibit 10.2 to the
4.2	Current Report on Form 8-K filed with the Securities and Exchange Commission on April 26, 2017)
5.1	Opinion of Latham & Watkins LLP
23.1	Consent of Latham & Watkins LLP (included in Exhibit 5.1)
23.2	Consent of Independent Registered Public Accounting Firm
24.1	Power of Attorney (included on signature page of this Registration Statement)

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Sunnyvale, State of California, on this 20th day of October, 2017.

INTUITIVE SURGICAL, INC.

By: /s/ Gary S. Guthart

Gary S. Guthart, Ph.D.

President and Chief Executive Officer

POWER OF ATTORNEY

Each person whose signature appears below constitutes and appoints Gary S. Guthart and Marshall L. Mohr, and each or any of them, such person's true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for such person and in such person's name, place and stead in any and all capacities, to sign any and all amendments (including post-effective amendments) 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 and about the premises, as fully to all intents and purposes as 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, or their or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Gary S. Guthart	President, Chief Executive Officer and Director	October 20, 2017
Gary S. Guthart, Ph.D.		
/s/ Marshall L. Mohr	Senior Vice President and Chief Financial Officer	October 20, 2017
Marshall L. Mohr		
/s/ Jamie E. Samath	Vice President, Corporate Controller, and Principal Accounting Officer	October 20, 2017
Jamie E. Samath		
/s/ Lonnie M. Smith	Chairman of the Board of Directors	October 20, 2017
Lonnie M. Smith		
/s/ Craig H. Barratt	Director	October 20, 2017
Craig H. Barratt, Ph.D.		
/s/ Michael A. Friedman	Director	October 20, 2017
Michael A. Friedman, M.D.		
/s/ Amal M. Johnson	Director	October 20, 2017
Amal M. Johnson		
/s/ Keith R. Leonard Jr.	Director	October 20, 2017
Keith R. Leonard, Jr.		
/s/ Alan J. Levy	Director	October 20, 2017
Alan J. Levy, Ph.D.		
/s/ Jami Dover Nachtsheim	Director	October 20, 2017
Jami Dover Nachtsheim		
/s/ Mark J. Rubash	Director	October 20, 2017
Mark J. Rubash	_	

140 Scott Drive Menlo Park, California 94025 Tel: +1.650.328.4600 Fax: +1.650.463.2600

October 20, 2017

Intuitive Surgical, Inc. 1020 Kifer Road Sunnyvale, CA 94086

Re: Registration Statement on Form S-8; 4,800,000 shares of Common Stock, par value \$0.001 per share

Ladies and Gentlemen:

We have acted as special counsel to Intuitive Surgical, Inc., a Delaware corporation (the "Company"), in connection with the registration by the Company of up to an aggregate of 4,800,000 shares of common stock of the Company, par value \$0.001 per share (the "Shares"), consisting of (i) 3,300,000 shares issuable under the Company's Amended and Restated 2010 Incentive Award Plan (the "2010 Plan") and (ii) 1,500,000 shares issuable under the Company's Amended and Restated 2000 Employee Stock Purchase Plan (together with the 2010 Plan, the "Plans"), under the Securities Act of 1933, as amended (the "Act"), pursuant to a Registration Statement on Form S-8 filed with the Securities and Exchange Commission (the "Commission") on the date hereof (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 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 holders and have been issued by the Company against payment therefor (not less than par value) in the circumstances contemplated by the Plans, assuming in each case that the individual issuances, grants or awards under the Plans are duly authorized by all necessary corporate action and duly issued, granted or awarded and exercised in accordance with the requirements of law and the applicable Plans (and the agreements and awards duly adopted thereunder and in accordance therewith), the issue 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 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

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of our report dated February 3, 2017 relating to the financial statements, financial statement schedule and the effectiveness of internal control over financial reporting, which appears in Intuitive Surgical Inc.'s Annual Report on Form 10-K for the year ended December 31, 2016.

/s/ PricewaterhouseCoopers LLP San Jose, California October 20, 2017