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)

Delaware (State of Incorporation)

77-0416458 (I.R.S. Employer Identification No.)

950 Kifer Road Sunnyvale, California 94086 (Address of Principal Executive Offices including Zip Code)

2000 EQUITY INCENTIVE PLAN 2000 EMPLOYEE STOCK PURCHASE PLAN 2000 NON-EMPLOYEE DIRECTORS' STOCK OPTION PLAN (Full Title of the Plans)

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Lonnie Smith
President and Chief Executive Officer
Intuitive Surgical, Inc.
950 Kifer Road
Sunnyvale, California 94086
(408) 523-2100

Copy to:
Alan C. Mendelson, Esq.
Latham & Watkins LLP
135 Commonwealth Drive
Menlo Park, California 94025
(650) 328-4600

(Name, Address, Including Zip Code, and Telephone Number, Including Area Code for Agent for Service)

CALCULATION OF REGISTRATION FEE

Title of Securities to be Registered	Amount to be Registered(1)	Proposed Maximum Offering Price Per Share		Maximum Amount of Aggregate Offering Price	Amount of Registration Fee
Common Stock, \$0.001 par value	2,048,048(2)	\$	63.37(3)	\$129,784,801.76(3)	\$15,275.67

- This registration statement shall also cover any additional shares of common stock which become issuable under the 2000 Equity Incentive Plan, the 2000 Employee Stock Purchase Plan and the 2000 Non-Employee Directors' Stock Option Plan (the "Plans") 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.
- (2) Represents (i) 1,737,290 shares available for future grants under the 2000 Equity Incentive Plan, (ii) 210,758 shares available for future grants under the 2000 Employee Stock Purchase Plan, and (iii) 100,000 shares available for future grants under the 2000 Non-Employee Directors' Stock Option Plan.
- 3) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(c) for the 2,048,048 shares registered hereunder (based on the average of the high (\$65.24) and low (\$61.50) prices for the Company's Common Stock reported by the Nasdaq National Market on July 27, 2005).

Proposed sales to take place as soon after the effective date of the registration statement as options granted under the Plans are exercised.

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 (the "Common Stock"), to be offered and sold under the 2000 Equity Incentive Plan, the 2000 Employee Stock Purchase Plan and the 2000 Non-Employee Directors' Stock Option Plan (the "Plans") and the contents of such prior Registration Statements are incorporated by reference in this Registration Statement: (1) Registration Statement on Form S-8 filed August 11, 2000 (File No. 333-43558); (2) Registration Statement on Form S-8 filed July 18, 2001 (File No. 333-65342); (3) Registration Statement on Form S-8 filed September 20, 2002 (File No. 333-99893); and (4) Registration Statement on Form S-8 filed June 15, 2004 (File No. 333-116499). The Registrant is hereby registering an additional 1,737,290 shares issuable under the 2000 Equity Incentive Plan, 210,758 shares issuable under the 2000 Employee Stock Purchase Plan and 100,000 shares issuable under the 2000 Non-Employee Directors' Stock Option Plan, none of which have been issued as of the date of this Registration Statement.

Item 8. Exhibits.

See Index to Exhibits.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, 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 3rd day of August, 2005.

Intuitive Surgical, Inc.

By: /s/ Lonnie M. Smith

Lonnie M. Smith President and Chief Executive Officer

POWER OF ATTORNEY

Each person whose signature appears below constitutes and appoints Lonnie M. Smith and Susan K. Barnes, and each or any of them, his true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for him and in his 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 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, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

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Signature	Title	Date
/s/ Lonnie M. Smith	President, Chief Executive Officer and Director (Principal Executive Officer)	August 3, 2005
Lonnie M. Smith		
/s/ Susan K. Barnes	Senior Vice President, Chief Financial Officer and Assistant Secretary (Principal Financial Officer)	August 3, 2005
Susan K. Barnes	,	
/s/ Jonathan J. Skoglund	Corporate Controller (Principal Accounting Officer)	August 3, 2005
Jonathan J. Skoglund		
/s/ Robert W. Duggan	– Director	August 3, 2005
Robert W. Duggan		August 3, 2005
/s/ Eric H. Halvorson	- Director	August 3, 2005
Eric H. Halvorson		0 ,
/s/ Richard J. Kramer	– Director	August 2, 200E
Richard J. Kramer	- Director	August 3, 2005
/s/ Alan J. Levy, Ph.D.	- Director	A
Alan J. Levy, Ph.D.		August 3, 2005

/s/ William J. Mercer	Director	August 3, 2005
William J. Mercer	Director	August 3, 2003
/s/ D. Keith Grossman	Diversion	A
D. Keith Grossman	Director	August 3, 2005

INDEX TO EXHIBITS

Exhibit Number	
4.1*	Intuitive Surgical, Inc. 2000 Equity Incentive Plan
4.2*	Intuitive Surgical, Inc. 2000 Employee Stock Purchase Plan
4.3*	Intuitive Surgical, Inc. 2000 Non-Employee Directors' Stock Option Plan
4.4**	Amendment to the Intuitive Surgical, Inc. 2000 Non-Employee Directors' Stock Option Plan approved June 30, 2003
5.1	Opinion of Latham & Watkins LLP
23.1	Consent of Latham & Watkins LLP (included in Exhibit 5.1).
23.2	Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm.
24.1	Power of Attorney (included on signature page of this registration statement).

^{*} Incorporated by reference to the Company's Registration Statement on Form S-1, as amended (File No. 333-33016), originally filed with the Securities and Exchange Commission on March 22, 2000.

^{**} Incorporated by reference to the Company's Registration Statement on Form S-4, as amended (File No. 333-104093), originally filed with the Securities and Exchange Commission on March 28, 2003.

[Latham & Watkins Letterhead]

August 3, 2005

Intuitive Surgical, Inc. 950 Kifer Road Sunnyvale, California 94086

Ladies and Gentlemen:

In connection with the registration by Intuitive Surgical, Inc., a Delaware corporation (the "Company"), of 2,048,048 shares of common stock, par value \$0.001 per share (the "Shares"), issuable under the Company's 2000 Equity Incentive Plan, 2000 Employee Stock Purchase Plan, and 2000 Non-Employee Directors' Stock Option Plan (the "Plans"), under the Securities Act of 1933, as amended, on Form S–8 filed with the Securities and Exchange Commission on August 3, 2005 (the "Registration Statement"), you have requested our opinion with respect to the matters set forth below.

In our capacity as your special counsel in connection with such registration, we are familiar with the proceedings taken and proposed to be taken by the Company in connection with the authorization, issuance and sale of the Shares. In addition, we have examined such matters of fact and questions of law as we have considered appropriate for purposes of this letter.

We are opining herein as to the effect on the subject transaction only of the General Corporation Law of the State of Delaware, and we express no opinion with respect to the applicability thereto, or the effect thereon, of any other laws.

Subject to the foregoing, it is our opinion that, as of the date hereof, the Shares have been duly authorized by all necessary corporate action of the Company, and, upon issuance, delivery and payment therefor in the manner contemplated by the Plans, will be validly issued, fully paid and nonassessable.

We consent to your filing this opinion as an exhibit to the Registration Statement.

Very truly yours,

/s/ Latham & Watkins LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statement Form S-8 pertaining to the 2000 Equity Incentive Plan, 2000 Employee Stock Purchase Plan and 2000 Non-Employee Directors' Stock Option Plan, of Intuitive Surgical, Inc. of our reports dated March 9, 2005, with respect to the consolidated financial statements and schedule of Intuitive Surgical, Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 2004, Intuitive Surgical, Inc. management's assessment of the effectiveness of internal control over financial reporting, and the effectiveness of internal control over financial reporting of Intuitive Surgical, Inc., filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Palo Alto, California July 28, 2005