As filed with the Securities and Exchange Commission on March 3, 2015

Registration No. 333-

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

FORM S-8

REGISTRATION STATEMENT

UNDER THE SECURITIES ACT OF 1933

MACROGENICS, INC.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization)

9640 Medical Center Drive, Rockville, MD (Address of Principal Executive Offices) 06-1591613 (I.R.S. Employer Identification No.)

> 20850 (Zip Code)

2013 Equity Incentive Plan (Full title of the plan)

Scott Koenig, M.D., Ph.D. President and Chief Executive Officer 9640 Medical Center Drive Rockville, MD 20850 (Name and address of agent for service)

(301) 251-5172

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

Copies to:

Atul Saran Senior Vice President and General Counsel 9640 Medical Center Drive Rockville, MD 20850 (301) 251-5172

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

Large accelerated filer \Box Non-accelerated filer \Box (Do not check if a smaller reporting company) Arnold & Porter LLP 555 Twelfth Street NW Washington, DC 20004 (202) 942-5000

Richard E. Baltz

Accelerated filer x Smaller Reporting Company \Box

nt for service)

CALCULATION OF REGISTRATION FEE

	Amount	Proposed maximum	Proposed maximum	
Title of securities	to be	offering price	aggregate	Amount of
to be registered	registered(1)	per share	offering price	registration fee
Common Stock, \$0.01 par value per share	2,126,930 shares	\$34.91(2)	\$74,251,126.30(2)	\$8,628

(1) In accordance with Rule 416 under the Securities Act of 1933, as amended, this registration statement shall be deemed to cover any additional securities that may from time to time be offered or issued to prevent dilution resulting from stock splits, stock dividends or similar transactions.

(2) Estimated solely for the purpose of calculating the registration fee pursuant to Rules 457(c) and 457(h) of the Securities Act of 1933, as amended. The price per share and aggregate offering price are calculated on the basis of \$34.91, the average of the high and low price of the registrant's Common Stock as reported on the NASDAQ Global Market on February 27, 2015.

EXPLANATORY NOTE

This Registration Statement on Form S-8 is being filed for the purpose of registering an additional 2,126,930 shares of common stock of MacroGenics, Inc. (the "Company") issuable pursuant to the Company's 2013 Equity Incentive Plan. Accordingly, the contents of the Company's registration statement on Form S-8 filed with the SEC on November 12, 2013 (Registration No. 333-192277) are incorporated by reference into this Registration Statement pursuant to General Instruction E of Form S-8.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Certain Documents by Reference.

The SEC allows us to "incorporate by reference" information into this Registration Statement, which means that we can disclose important information to you by referring to those documents. We hereby "incorporate by reference" the documents listed below, which means that we are disclosing important information to you by referring you to those documents. The information that we file later with the SEC will automatically update and in some cases supersede this information. Specifically, we incorporate by reference the following documents or information filed with the SEC (other than, in each case, documents or information deemed to have been furnished and not filed in accordance with SEC rules):

- a) The Company's latest Annual Report filed pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or latest prospectus filed pursuant to Rule 424(b) under the Securities Act that contains audited financial statements for the latest fiscal year for which such statements have been filed;
- b) All other reports filed by the Company pursuant to Section 13(a) or 15(d) of the Exchange Act since the end of the fiscal year covered by the Company's latest annual report or prospectus referred to in (a) above;
- c) The description of the Company's common stock contained in its Registration Statement on Form 8-A filed on October 7, 2013, including any amendments or reports filed for the purpose of updating such description; and
- d) Future filings the Company makes with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this Registration Statement and before the filing of any post-effective amendment to this Registration Statement which indicates that all securities offered under this Registration Statement have been sold or which deregisters all such securities then remaining unsold.

Any statement, including financial statements, contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein or therein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement

Item 8. Exhibits.

The exhibits to this Registration Statement are described in the Exhibit Index below.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended (the "Securities Act"), 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 Rockville, State of Maryland, on March 3, 2015.

DATE: March 3, 2015

By: <u>/s/ Scott Koenig</u>

Name: Scott Koenig, M.D., Ph.D. Title: President and Chief Executive Officer

We, the undersigned directors and officers of MacroGenics, Inc., a Delaware corporation, do hereby constitute and appoint Scott Koenig, Chief Executive Officer, and James Karrels, Chief Financial Officer, and each and either of them, our true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, to do any and all acts and things in our names and on our behalf in our capacities as directors and officers and to execute any and all instruments for us and in our name in the capacities indicated below, which said attorneys and agents may deem necessary or advisable to enable said corporation to comply with the Securities Act and any rules, regulations and requirements of the SEC, in connection with this registration statement, or any registration statement for this offering under the Securities Act, including specifically, but without limitation, any and all amendments (including post-effective amendments) hereto; and we hereby ratify and confirm all that said attorneys and agents, or either of them, shall do or cause to be done by virtue thereof.

Pursuant to the requirements of the Securities Act, this registration statement has been signed by the following persons on March 3, 2015.

SIGNATURE:	TITLE:	
/s/ Scott Koenig Scott Koenig, M.D., Ph.D.	President and CEO and Director (Principal Executive Officer)	
/s/ James Karrels James Karrels	Senior Vice President, Chief Financial Officer and Secretary (Principal Financial Officer)	
/s/ Lynn Cilinski Lynn Cilinski	Vice President, Controller and Treasurer (Principal Accounting Officer)	
/s/ Paulo Costa Paulo Costa	Director	
/s/ Matthew Fust Matthew Fust	Director	
/s/ Kenneth Galbraith Kenneth Galbraith	Director	
/s/ Edward Hurwitz Edward Hurwitz	Director	
/s/ David Stump David Stump, M.D.	Director	

- 5.1 Opinion of Arnold & Porter LLP
- 23.1 Consent of Arnold & Porter LLP (included in Exhibit 5.1)
- 23.2 Consent of Ernst & Young LLP
- 24.1 Power of Attorney (included on signature page)

ARNOLD & PORTER LLP

+1 202.942.5000 +1 202.942.5999 Fax

555 Twelfth Street, NW Washington, DC 20004-1206

March 3, 2015

MacroGenics, Inc. 9640 Medical Center Drive, Suite 300 Rockville, MD 20850

Ladies and Gentlemen:

You have requested our opinion with respect to certain matters in connection with the preparation of a Registration Statement on Form S-8 (the "Registration Statement") to be filed with the Securities and Exchange Commission under the Securities Act of 1933, as amended (the "Act"). The Registration Statement relates to 2,126,930 shares of Company Common Stock that may be issued or sold pursuant to the Company's 2013 Equity Incentive Plan (the "2013 Plan").

In connection with rendering the opinions set forth in this letter, we have examined and relied upon (a) the Registration Statement and related prospectuses, (b) the 2013 Plan, (c) the Company's Restated Certificate of Incorporation, the Certificate of Correction thereto, and the Amended and Restated Bylaws, each as currently in effect, and (d) such other documents, records, certificates, memoranda and other instruments as in our judgment are necessary or appropriate to enable us to render the opinion expressed below. We have assumed the genuineness and authenticity of all documents submitted to us as originals, the conformity to originals of all documents submitted to us as copies thereof, and the due execution and delivery of all documents where due execution and delivery are a prerequisite to the effectiveness.

Our opinion herein is expressed solely with respect to the General Corporation Law of the State of Delaware. As to matters governed by the laws specified in the foregoing sentence, we have relied exclusively on the latest standard compilations of such statutes and laws as reproduced in commonly accepted unofficial publications available to us.

On the basis of the foregoing, and in reliance thereon, upon the assumptions that there will be no material changes in the documents we have examined and the matters investigated referred to above and that there are sufficient authorized but unissued or treasury shares of Common Stock available at the time of issuance or sale, we are of the opinion that the 2,126,930 shares of Common Stock subject to the 2013 Plan have been duly authorized by the Company and, when issued and sold for legal consideration of not less than \$0.01 per share in accordance with the 2013 Plan, the Registration Statement and related prospectuses, such shares will be validly issued, fully paid, and nonassessable.

This letter does not address any matters other than those expressly addressed herein. This letter speaks only as of the date hereof. We undertake no responsibility to update or supplement it after such date.

ARNOLD & PORTER LLP

This opinion is being furnished to you for submission to the Securities and Exchange Commission as an exhibit to the Company's Registration Statement. We hereby consent to the filing of this opinion as an exhibit to the Registration Statement and to the use of the name of our firm therein. In giving this consent, we do not admit that we are within the category of persons whose consent is required by Section 7 of the Act or the rules and regulations of the Securities and Exchange Commission thereunder.

Sincerely,

/s/ Arnold & Porter LLP

Arnold & Porter LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statement (Form S-8) filed on March 3, 2015 pertaining to the 2013 Equity Incentive Plan of MacroGenics, Inc. of our report dated March 3, 2015, included in its Annual Report on Form 10-K for the fiscal year ended December 31, 2014, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

McLean, Virginia March 3, 2015