

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

**FORM S-8**

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

**INVIVO THERAPEUTICS HOLDINGS CORP.**

(Exact name of registrant as specified in its charter)

**Nevada**  
(State or other jurisdiction of  
incorporation or organization)

**36-4528166**  
(I.R.S. Employer Identification No.)

**One Kendall Square, Suite B14402  
Cambridge, Massachusetts 02139**  
(Address of Principal Executive Offices)(Zip Code)

**Employee Stock Purchase Plan**  
(Full title of the plan)

**Steven McAllister  
Chief Financial Officer  
InVivo Therapeutics Holdings Corp.  
One Kendall Square, Suite B14402  
Cambridge, Massachusetts 02139**  
(Name and address of agent for service)

**(617) 863-5500**  
(Telephone number, including area code, of agent for service)

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 the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer ☐ Accelerated filer ☒  
Non-accelerated filer ☐ (Do not check if a smaller reporting company) Smaller Reporting Company ☐

**CALCULATION OF REGISTRATION FEE**

Title of securities to be registered	Amount to be registered (1)	Proposed maximum offering price per share (2)	Proposed maximum aggregate offering price (2)	Amount of registration fee
Common Stock, \$0.00001 par value per share	187,500	\$ 15.53	\$ 2,911,875.00	\$ 338.36

- (1) In accordance with Rule 416 of the Securities Act of 1933, as amended (the "Securities Act"), this Registration Statement shall be deemed to cover any additional securities which become issuable under the Employee Stock Purchase Plan by reason of any stock dividend, stock split, recapitalization or any other similar transaction without receipt of consideration which results in an increase in the number of outstanding shares of the common stock, \$0.00001 par value per share, of the Registrant (the "Common Stock").
- (2) Calculated solely for purposes of this offering under Rules 457(c) and 457(h) of the Securities Act based on the average of the high and low sale prices of the Common Stock as reported on The NASDAQ Capital Market on June 29, 2015.

**PART II**

**INFORMATION REQUIRED IN THE REGISTRATION STATEMENT**

**Item 3. Incorporation of Documents by Reference.**

The Registrant is subject to the informational and reporting requirements of Sections 13(a), 14, and 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and in accordance therewith files reports, proxy statements and other information with the Commission. The following documents, which are on file with the Commission, are incorporated in this Registration Statement by reference:

- (a) the Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2014;
- (b) All other reports filed pursuant to Section 13(a) or 15(d) of the Exchange Act since the end of the fiscal year covered by the document referred to in (a) above; and
- (c) The description of the Registrant's Common Stock contained in the Registrant's Registration Statement on Form 8-A, filed on April 15, 2015, including any amendment or report filed for the purpose of updating such description.

In addition, all documents subsequently filed by the Registrant pursuant to Sections 13(a), 13(c), 14, or 15(d) of the Exchange Act, prior to the filing of a post-effective amendment which indicates that all securities offered hereby have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference into this Registration Statement and to be a part hereof from the date of filing of such documents. Any statement 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 in any 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 4. Description of Securities.**

Not applicable.

**Item 5. Interests of Named Experts and Counsel.**

Not applicable.

**Item 6. Indemnification of Directors and Officers.**

Nevada Revised Statutes ("NRS") Sections 78.7502 and 78.751 provide the Registrant with the power to indemnify any of its directors, officers, employees and agents. The person entitled to indemnification must have conducted himself in good faith, and must reasonably believe that his conduct was in, or not opposed to, our best interests. In a criminal action, the director, officer, employee or agent must not have had reasonable cause to believe that his conduct was unlawful. Under NRS Section 78.751, advances for expenses may be made by agreement if the director or officer affirms in writing to repay the expenses if it is determined that such officer or director is not entitled to be indemnified.

The Registrant's bylaws include an indemnification provision under which it has the power to indemnify its directors, officers, former directors and officers, employees and other agents (including heirs and personal representatives) against all costs, charges and expenses actually and reasonably incurred, including an amount paid to settle an action or satisfy a judgment to which a director or officer is made a party by reason of being or having been a director or officer of the Registrant. The Registrant's bylaws further provide for the advancement of all expenses incurred in connection with a proceeding upon receipt of an undertaking by or on behalf of such person to repay such amounts unless it is determined that the party is entitled to be indemnified under such bylaws. No advance will be made by the Registrant to a party if it is determined that the party acted in bad faith. These indemnification rights are contractual, and as such will continue as to a person who has ceased to be a director,

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officer, employee or other agent, and will inure to the benefit of the heirs, executors and administrators of such a person. The Registrant's bylaws do not eliminate or limit the liability of a director for: (i) an act or omission which involves intentional misconduct, fraud or a knowing violation of law; or (ii) the payment of dividends in violation of NRS 78.300. These provisions may be sufficiently broad to indemnify such persons for liabilities arising under the Securities Act, in which case such provision is against public policy as expressed in the Securities Act and is therefore unenforceable.

The Registrant maintains an insurance policy on behalf of its directors and officers, covering certain liabilities which may arise as a result of the actions of the directors and officers. The Registrant has entered into an indemnification agreement with each of its officers and directors pursuant to which they will be indemnified by the Registrant, subject to certain limitations, for any liabilities incurred by them in connection with their role as officers or directors of the Registrant or its subsidiaries.

**Item 7. Exemption From Registration Claimed.**

Not applicable.

**Item 8. Exhibits.**

The Exhibit Index immediately preceding the exhibits is incorporated herein by reference.

**Item 9. Undertakings.**

(a) The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act;

(ii) To reflect in the prospectus any facts or events arising after the effective date of this Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in this Registration Statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate,

the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the “Calculation of Registration Fee” table in the effective Registration Statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in this Registration Statement or any material change to such information in this Registration Statement;

*provided, however*, that paragraphs (a)(1)(i) and (a)(1)(ii) above do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in the Registration Statement.

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(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(b) The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant’s annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan’s annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in this Registration Statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

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### 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 Cambridge, Commonwealth of Massachusetts, on July 2, 2015.

INVIVO THERAPEUTICS HOLDINGS CORP.

By: /s/ Steven F. McAllister  
Steven F. McAllister  
Chief Financial Officer

### POWER OF ATTORNEY

KNOW ALL BY THESE PRESENTS that each individual whose signature appears below constitutes and appoints each of Steven McAllister and Mark D. Perrin as such person’s true and lawful attorney-in-fact and agent with full power of substitution and resubstitution, for such person in such person’s name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement (or any Registration Statement for the same offering that is to be effective upon filing pursuant to Rule 462(b) under the Securities Act of 1933), and to file the same, with all exhibits thereto, and all documents in connection therewith, with the Commission, granting unto said attorney-in-fact and agent 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 such person might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or any substitute or substitutes of him, 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/ Mark D. Perrin</u> Mark D. Perrin	Chief Executive Officer and Chairman of the Board (Principal Executive Officer)	July 2, 2015
<u>/s/ Steven F. McAllister</u> Steven F. McAllister	Chief Financial Officer and Treasurer (Principal Financial Officer and Principal Accounting Officer)	July 2, 2015
<u>/s/ Kenneth DiPietro</u>	Director	July 2, 2015

Kenneth DiPietro		
/s/ Daniel R. Marshak	Director	July 2, 2015
Daniel R. Marshak		
/s/ John A. McCarthy, Jr.	Director	July 2, 2015
John A. McCarthy, Jr.		
/s/ C. Ann Merrifield	Director	July 2, 2015
C. Ann Merrifield		
/s/ Richard J. Roberts	Director	July 2, 2015
Richard J. Roberts		

EXHIBIT INDEX

Exhibit Number	Exhibit
5.1	Opinion of Greenberg Traurig, LLP
23.1	Consent of Greenberg Traurig, LLP (included in Exhibit 5.1)
23.2	Consent of Wolf & Company, P.C.
99.1	Employee Stock Purchase Plan (incorporated by reference from Exhibit 10.1 to the Company’s Current Report on Form 8-K, as filed with the SEC on June 16, 2015)

InVivo Therapeutics Holdings Corp.  
One Kendall Square, Suite B14402  
Cambridge, Massachusetts 02139

July 2, 2015

**Re: InVivo Therapeutics Holdings Corp. 2015 Equity Incentive Plan**

Ladies and Gentlemen:

We have assisted in the preparation of a Registration Statement on Form S-8 (the “Registration Statement”) to be filed with the Securities and Exchange Commission (the “Commission”) under the Securities Act of 1933, as amended (the “Securities Act”), relating to an aggregate of 187,500 shares (the “Shares”) of common stock, \$0.00001 par value per share (the “Common Stock”), of InVivo Therapeutics Holdings Corp., a Nevada corporation (the “Company”), that may be issued under the Company’s Employee Stock Purchase Plan (the “Plan”).

We have examined the Articles of Incorporation and Bylaws of the Company, each as amended and restated to date, and originals, or copies certified to our satisfaction, of all pertinent records of the meetings of the directors and stockholders of the Company, the Registration Statement and such other documents relating to the Company as we have deemed material for the purposes of this opinion.

In our examination of the foregoing documents, we have assumed the genuineness of all signatures, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as certified, photostatic or other copies, the authenticity of the originals of any such documents and the legal competence of all signatories to such documents.

We assume that the appropriate action will be taken, prior to the offer and sale of the Shares in accordance with the Plan, to register and qualify the Shares for sale under all applicable state securities or “Blue Sky” laws. We express no opinion herein as to the laws of any state or jurisdiction other than the Nevada General Corporation Law and the federal laws of the United States of America.

Please note that we are opining only as to the matters expressly set forth herein, and no opinion should be inferred as to any other matters.

Based on the foregoing, we are of the opinion that the Shares have been duly authorized for issuance and, when the Shares are issued and paid for in accordance with the terms and conditions of the Plan, the Shares will be validly issued, fully paid and nonassessable.

We hereby consent to the filing of this opinion with the Commission in connection with the Registration Statement in accordance with the requirements of Item 601(b)(5) of Regulation S-K under the Securities Act. In giving such consent, we do not hereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission.

Very truly yours,

/s/ Greenberg Traurig, LLP

GREENBERG TRAURIG, LLP

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**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We consent to the incorporation by reference in this Registration Statement on Form S-8 of InVivo Therapeutics Holdings Corp. of our reports dated March 11, 2015, relating to our audits of the consolidated financial statements and internal control over financial reporting, which appear in the Annual Report on Form 10-K of InVivo Therapeutics Holdings Corp. for the year ended December 31, 2014.

/s/ Wolf & Company, P.C.

Wolf & Company, P.C.  
Boston, Massachusetts  
July 1, 2015

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