

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

**POST-EFFECTIVE AMENDMENT NO. 1
TO**

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
Cambridge, MA**
(Address of Principal Executive Offices)

02139
(Zip Code)

Employee Stock Purchase Plan
(Full title of the plan)

Richard Toselli, M.D.
President and Chief Executive 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
Non-accelerated filer (Do not check if a smaller reporting company)

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 7(a)(2)(B) of the Securities Act.

EXPLANATORY NOTE

On July 2, 2015, the InVivo Therapeutics Holdings Corp. (the “Registrant”) filed a Registration Statement on [Form S-8 \(File No.: 333-205469\)](#) (the “Form S-8”) registering 250 shares (on a post-split basis) of the Registrant’s common stock, \$0.00001 par value per share (the “Shares”), to be issued to participants under the Registrant’s Employee Stock Purchase Plan (the “Plan”). On December 4, 2020, the Registrant terminated the Plan.

This Post-Effective Amendment No. 1 to the Registration Statement on Form S-8 is being filed in order to deregister all Shares that were registered under the Form S-8 and remain unissued under the Plan. The Registrant hereby removes from registration any and all securities of the Registrant registered for sale under the Form S-8 that remain unsold as of the date of this Post-Effective Amendment. The Form S-8 is hereby amended to reflect the deregistration of such securities.

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 Post-Effective Amendment No. 1 to be signed on its behalf by the undersigned, thereunto duly authorized, in the city of Cambridge, Commonwealth of Massachusetts, on March 5, 2021.

INVIVO THERAPEUTICS HOLDINGS CORP.

By: /s/ RICHARD TOSELLI M.D.

Richard Toselli
Chief Executive Officer

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/ RICHARD TOSELLI M.D.</u> Richard Toselli	President, Chief Executive Officer and Director (Principal Executive Officer)	March 5, 2021
<u>/s/ RICHARD CHRISTOPHER</u> Richard Christopher	Chief Financial Officer and Treasurer (Principal Financial Officer and Principal Accounting Officer)	March 5, 2021
<u>/s/ C. ANN MERRIFIELD</u> C. Ann Merrifield	Chair of the Board	March 5, 2021
<u>/s/ DANIEL R. MARSHAK</u> Daniel R. Marshak	Director	March 5, 2021
<u>/s/ CHRISTINA MORRISON</u> Christina Morrison	Director	March 5, 2021
<u>/s/ RICHARD J. ROBERTS</u> Richard J. Roberts	Director	March 5, 2021
<u>/s/ ROBERT J. ROSENTHAL</u> Robert J. Rosenthal	Director	March 5, 2021
