INVIVO THERAPEUTICS HOLDINGS CORP.

One Kendall Square Suite B14402 Cambridge, Massachusetts 02139

November 13, 2019

VIA EDGAR

Securities and Exchange Commission Division of Corporation Finance 100 F Street, N.E. Washington, D.C. 20549

Re: InVivo Therapeutics Holdings Corp.

Registration Statement on Form S-3

File No. 333-234353 Request for Acceleration

Ladies and Gentlemen:

Pursuant to Rule 461 promulgated under the Securities Act of 1933, as amended, InVivo Therapeutics Holdings Corp. (the "Registrant") hereby requests acceleration of the effective date of its Registration Statement on Form S-3 (File No. 333-234353), so that it may become effective at 4:00 p.m. Eastern time on November 14, 2019, or as soon thereafter as practicable, or at such later time as the Registrant or its counsel may orally request via telephone call to the staff.

Very truly yours,

INVIVO THERAPEUTICS HOLDINGS CORP.

By: /s/ Richard Toselli
Name: Richard Toselli
Title: Chief Executive Officer

cc: Rosemary G. Reilly

Wilmer Cutler Pickering Hale and Dorr LLP