

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

February 9, 2018

**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-1  
File No. 333-222738  
Request for Acceleration

Ladies and Gentlemen:

Pursuant to Rule 461 promulgated under the Securities Act of 1933, as amended, InVivo Therapeutics Holdings Corp. hereby requests acceleration of the effective date of its Registration Statement on Form S-1 (File No. 333-222738), so that it may become effective at 4:00 p.m. on February 12, 2018, or as soon thereafter as practicable.

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Very truly yours,

INVIVO THERAPEUTICS HOLDINGS CORP.

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

*Signature Page to Acceleration Request*

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