

**INVIVO THERAPEUTICS HOLDINGS CORP.**  
**One Broadway, 14<sup>th</sup> Floor**  
**Cambridge, Massachusetts 02142**

July 27, 2011

VIA EDGAR

Securities and Exchange Commission  
100 F Street, NE  
Washington, D.C. 20549  
Attn: Amanda Ravitz, Esq.

Re: InVivo Therapeutics Holdings Corp. Registration Statement on Form S-1  
(Registration No. 333-171998)

Dear Ms. Ravitz:

InVivo Therapeutics Holdings Corp. (the “Company”) respectfully requests that the Securities and Exchange Commission, acting pursuant to Section 8(a) of the Securities Act of 1933, as amended, and pursuant to Rule 461(a) promulgated thereunder, enter an appropriate order declaring the above captioned Registration Statement on Form S-1 effective as of 4:30 p.m. Eastern Daylight Time on Friday, July 29, 2011 or as soon thereafter as is practicable.

The Company hereby acknowledges that: (i) should the Commission or the staff, acting pursuant to delegated authority, declare such Registration Statement effective, it does not foreclose the Commission from taking any action with respect to the filing; (ii) the action of the Commission or the staff, acting pursuant to delegated authority, in declaring such Registration Statement effective, does not relieve the Company from its full responsibility for the adequacy and accuracy of the disclosure in such filing; and (iii) the Company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please do not hesitate to contact me or my outside counsel, Thomas B. Rosedale, whose telephone and facsimile numbers are included below, with any questions.

Very truly yours,

INVIVO THERAPEUTICS HOLDINGS CORP.

By: /s/ Frank M. Reynolds

Frank M. Reynolds

Chief Executive Officer and Chief Financial Officer

cc: Ruairi Regan, Esq.  
(Securities and Exchange Commission)

Thomas B. Rosedale, Esq.  
(BRL Law Group LLC)  
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