UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-K/A (Amendment No. 1)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934

FOR THE FISCAL YEAR ENDED DECEMBER 31, 2010

□ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934

FOR THE TRANSITION PERIOD FROM ______ TO _____

COMMISSION FILE NUMBER 000-52089

INVIVO THERAPEUTICS HOLDINGS CORP.

(Exact Name of Registrant as specified in its charter)

Nevada	36-4528166
(State or other jurisdiction of	(I.R.S. Employer
incorporation or organization)	Identification No.)
One Broadway, 14th Floor	
Cambridge, Massachusetts	02142
(Address of principal executive	
offices)	(Zip Code)
Registrant's telephone number, including area code: (617) 475-15	20
Securities registered pursuant to Section 12(b) of the Act: None	2
Securities registered pursuant to Section 12(g) of the Act:	

Title of each class	Name of each exchange on which registered			
Common Stock, par value \$0.00001 per share	Over-the-Counter Bulletin Board			

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes 🗌 No 🗵

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes 🗆 No 🗵

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes \boxtimes No \square

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes \Box No \Box

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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 \Box	Accelerated filer \Box	Non-accelerated filer \Box	Smaller reporting company 🗵
		(Do not check if a	
		smaller reporting company)	

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes 🗆 No 🗵

Our common stock began being quoted on the OTC Bulletin Board under the symbol "NVIV" effective October 29, 2010. The approximate aggregate market value of the voting and non-voting common equity held by non-affiliates of the issuer on October 29, 2010 was \$58,547,354 based on a closing price of \$2.70 of our common stock on that date.

As of March 21, 2011, the number of shares outstanding of the registrant's common stock, \$0.00001 par value per share, was 51,674,712.

DOCUMENTS INCORPORATED BY REFERENCE

None.

EXPLANATORY NOTE

This Amendment No. 1 (this "Amendment") of InVivo Therapeutics Holdings Corp. (the "Company") amends the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2010, originally filed March 24, 2011 (the "Form 10-K"). It is being filed solely to include the information required in Part III (Items 10, 11, 12, 13 and 14) of Form 10-K that was previously omitted from the Form 10-K.

General Instruction G(3) to Form 10-K allows such omitted information to be filed as an amendment to the Form 10-K or incorporated by reference from the Company's definitive proxy statement which involves the election of directors not later than 120 days after the end of the fiscal year covered by the Form 10-K. Because the Company's definitive Proxy Statement for the 2011 Annual Meeting of Shareholders will not be filed with the Securities and Exchange Commission ("SEC") within 120 days after the end of the fiscal year ended December 31, 2010, the information required by Part III of Form 10-K cannot be incorporated by reference and, therefore, must be included as part of the Form 10-K. Accordingly, the Company is filing this Amendment to include such omitted information as part of the Form 10-K.

Except as modified herein, no other information in the Form 10-K is being modified or amended by this Amendment, and unless indicated otherwise, this Amendment does not reflect events occurring after March 24, 2011, which is the filing date of the Form 10-K. Accordingly, this Amendment should be read in conjunction with the Form 10-K and the Company's other filings with the SEC. Unless otherwise indicated, capitalized terms used herein but not defined shall have the meanings ascribed to them in the Form 10-K.

INVIVO THERAPEUTICS HOLDINGS CORP. ANNUAL REPORT ON FORM 10-K/A (Amendment No. 1) FOR THE YEAR ENDED DECEMBER 31, 2010 TABLE OF CONTENTS

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PART III

Item 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE.

Directors and Executive Officers

The following persons are the executive officers and directors of the Company and hold the positions set forth opposite their name.

Name	Age	Position
Frank M. Reynolds	48	Chairman of the Board of Directors, Chief Executive Officer,
		Chief Financial Officer*
Richard J. Roberts	67	Director, Scientific Advisory Board Member
George Nolen	54	Director (Lead Director)
Christi M. Pedra	52	Director
Adam K. Stern	46	Director

* Mr. Reynolds will serve as Chief Financial Officer pending our hiring of an individual to serve in such capacity. We have initiated a search to locate such a qualified individual.

Frank M. Reynolds, Chairman of the Board of Directors, Chief Executive Officer and Chief Financial Officer, age 48, has been our CEO, Chairman and CFO since October 2010 and has been CEO of InVivo since 2005. He is an Executive Board Member of the Irish American Business Chamber and has served on the board of the Special Olympics of Massachusetts, Philadelphia Cares, and Wharton Consulting Partners. Mr. Reynolds brings to the Board over 25 years of executive management experience. He is the former Director of Global Business Development at Siemens Corporation where he was responsible for new business in 132 countries. He was the founder & CEO of Expand the Knowledge, Inc., an IT consulting company with a focus on life sciences. In addition, Mr. Reynold's executive role at the Company provides him a deep knowledge of our business.

Mr. Reynolds suffered an injury to his spine in 1992. While recovering from this injury, he took the opportunity to earn two Master's degrees and he currently holds a Master of Business Administration from Sloan Fellows Program in Global Innovation and Leadership- 2006, Massachusetts Institute of Technology; a Master's of Science in Technology Management- 2005, The Wharton School of Business, University of Pennsylvania; a Master's of Science in Engineering — 2003, University of Pennsylvania; a Master's of Science in Management Information Systems — 2001, Temple University; a Master's of Science in Health Administration- 1996; Saint Joseph's University; and a Master's of Science in Psychology — 1994, Chestnut Hill College. He also has a Bachelor of Science in Marketing- 1984, Rider University.

Dr. Richard J. Roberts, PhD, Director, age 67, has been a director of the Company since October 2010 and a director of InVivo since November 2008. Dr. Roberts has been the Chief Scientific Officer at New England Biolabs since July 1, 2005. Dr. Roberts joined InVivo's Scientific Advisory Board in June 2007. He was awarded the 1993 Nobel Prize in Physiology or Medicine along with Phillip Allen Sharp for the discovery of introns in eukaryotic DNA and the mechanism of gene-splicing. He holds a B.Sc. in Chemistry and a Ph.D. in Organic Chemistry from the University of Sheffield, U.K. Dr. Roberts has discovered and cloned restriction enzymes and been involved in studies of Adenovirus-2, beginning with studies of transcription that led to the discovery of split genes and mRNA splicing. His laboratory has pioneered the application and development of computer methods for protein and nucleic acid sequence analysis that continues to be a major research focus for Dr. Roberts. Dr. Roberts brings to the Board an understanding of the science and technology involved in our business.

George Nolen, Lead Director, age 54, has been a director of the Company since October 2010 and a director of InVivo since December 2009. Mr. Nolen was the President and Chief Executive Officer of Siemens Corporation, the U.S. subsidiary of Siemens, AG, from 2004 until his retirement in August of 2009. Prior to his

role as Siemens USA's CEO, Mr. Nolen held numerous roles in Siemens including President of Siemens' Information and Communications division, overseeing this business from 1998 to 2004. He is a 1978 graduate of Virginia Tech, where he currently serves as the Rector of the University's Board of Visitors. Mr. Nolen brings to the Board extensive leadership and business experience through his successful and long-running career at Siemens.

Christi M. Pedra, Director, age 52, has been a director of the Company since October 2010 and a director of InVivo since November 2008. Ms. Pedra became the Senior Vice President, Strategic New Business Development & Marketing Siemens Healthcare of Siemens Medical USA in January 2010. Previously she served as Chief Executive Officer of Siemens Hearing Instruments, Inc. from January 2007 through December 2009. She was charged with leading the company's sales, manufacturing, product development, customer relations and research and development in the United States. From October 2003 through December 2006, she served as Vice President and Chief Operating Officer of Siemens One. Prior to her role with Siemens One, Ms. Pedra served as Vice President of Executive Relations for Siemens Corporation in the Office of the President. Currently, Ms. Pedra is a member of the National Collegiate Athletic Association Leadership Advisory Board. She also serves on the National Council for Liberal Education America's Promise and takes part in several formal and informal mentoring programs. And in 2002, Ms. Pedra was nominated and selected to be a David Rockefeller Fellow, a one-year leadership program sponsored by the NYC Partnership and the David Rockefeller Foundation. Ms. Pedra received her MBA from Rutgers University. Ms. Pedra brings to the Board extensive management experience through her many roles at Siemens.

Adam K. Stern, Director, age 46, has been a director of the Company since October 2010 and was designated as such by Spencer Trask Ventures, Inc. ("Spencer Trask"). Mr. Stern is Senior Managing Director of Spencer Trask and has over 20 years of venture capital and investment banking experience focusing primarily on the technology and life science sectors of the capital markets. He currently manages the structured finance group of Spencer Trask. Mr. Stern joined Spencer Trask in September 1997 from Josephthal & Co., members of the New York Stock Exchange, where he served as Senior Vice President and Managing Director of Private Equity Marketing and held increasingly responsible positions from 1989 to 1997. He has been a licensed securities broker since 1987 and a General Securities Principal since 1991. Mr. Stern currently sits on the boards of various private companies and one public company, PROLOR Biotech (NYSE/AMEX:PBTH). Mr. Stern holds a Bachelor of Arts degree with honors from The University of South Florida in Tampa. Mr. Stern brings to the Board extensive financial experience through his career in the financial sector.

No director or executive officer is related by blood, marriage or adoption to any other director or executive officer. Spencer Trask was granted the right to designate one member to our Board of Directors for a period of two years following the closing of our private placement and has designated Adam K. Stern to fill such Board seat.

Board and Committee Meetings

The Board held 1 meeting during the fiscal year ended December 31, 2010 ("fiscal 2010"). Each incumbent director attended the meeting. We strongly encourage all directors to attend the annual meeting of shareholders.

Board Leadership Structure

The Board does not have a policy on whether the offices of Chairman and Chief Executive Officer should be separate and, if they are to be separate, whether the Chairman should be selected from among the independent directors or should be an employee of the Company. In the event the Chairman is not an independent director, the Board may designate a lead independent director. The duties of the lead independent director, as set forth in our Corporate Governance Guidelines, include (i) chairing any meeting of the independent directors in executive session, (ii) facilitating communications between other members of the Board and the Chairman (however, each director is free to communicate directly with the Chairman), (iii) in the event a shareholder seeks to communicate

with the Board, accepting and responding to such communications in conjunction with the Chairman, and (iv) working with the Chairman (a) in the preparation of the agenda for each Board meeting, (b) in scheduling the time devoted to matters at each Board meeting and (c) as required, in determining the need for special meetings of the Board. The appointment of lead independent director rotates among the independent directors, but no more frequently than annually, and the Board periodically reviews the matter to determine if and when a rotation is advisable. The lead independent director is currently George Nolen.

Committees of the Board

The Board has designated two principal standing committees, the Audit Committee and the Governance, Nominating and Compensation Committee (the "GNC Committee"). The current members of the Audit Committee and the GNC Committee are identified in the following table:

Name	Audit Committee	GNC Committee
George Nolen	Chair	X
Christi Pedra	Х	Chair
Rich Roberts	Х	Х

Audit Committee

The Board has a standing Audit Committee established in accordance with Section 3(a)(58)A of the Exchange Act. The Audit Committee assists the Board in fulfilling its responsibilities to shareholders concerning our financial reporting and internal controls. The Audit Committee facilitates open communication among the Audit Committee, the Board, our independent registered public accounting firm and management. The Audit Committee discusses with management and our independent registered public accounting, retaining, and, where necessary, terminating the engagement of our independent registered public accounting firm meets with the Audit Committee (both with and without the presence of our management) to review and discuss various matters pertaining to the audit, including our financial statements, the report of the independent registered public accounting firm on the results, scope and terms of their work, and their recommendations concerning the financial practices, controls, procedures and policies employed by us.

The Audit Committee pre-approves all audit services to be provided to us by the principal auditor and all other services (including reviewing, attestation and non-audit services) to be provided to us by the independent registered public accounting firm.

The Audit Committee is charged with establishing procedures for (i) the receipt, retention and treatment of complaints received by us regarding accounting, internal accounting controls or auditing matters; and (ii) the confidential, anonymous submission by our employees of concerns regarding questionable accounting or auditing matters. The Audit Committee reviews and oversees all related party transactions on an ongoing basis. The Audit Committee is authorized, without further action by the Board, to engage independent legal, accounting and other advisors as it deems necessary or appropriate to carry out its responsibilities. The Board has adopted a written charter for the Audit Committee, a copy of which is available on our website.

The Board has determined that all of the members of the Audit Committee are independent (as defined by the listing standards of the Nasdaq Stock Market and the applicable SEC rules), and that the Audit Committee members meet the independence requirements contemplated by Rule 10A-3 under the Exchange Act. The Board has determined that George Nolen is an "audit committee financial expert" (as defined in Item 407(d)(5) of Regulation S-K).

GNC Committee

The GNC Committee assists the Board in fulfilling its responsibilities relating to (i) compensation of our executive officers, (ii) the director nomination process and (iii) reviewing our compliance with SEC corporate governance requirements. The Board has adopted a written charter for the GNC Committee, a copy of which is available on our website. The Board has determined that all of the members of the GNC Committee are independent (as defined by the listing standards of the Nasdaq Stock Market and the applicable SEC rules).

The GNC Committee determines salaries, incentives and other forms of compensation for the Chief Executive Officer and our executive officers and reviews and makes recommendations to the Board with respect to director compensation. The GNC Committee annually reviews and approves the corporate goals and objectives relevant to the compensation of the Chief Executive Officer, evaluates the Chief Executive Officer's performance in light of these goals and objectives, and sets the Chief Executive Officer's compensation level based on this evaluation. The GNC Committee meets without the presence of executive officers when approving or deliberating on executive officer compensation, but may invite the Chief Executive Officer to be present during the approval of, or deliberations with respect to, other executive officer compensation. The GNC Committee reviews and approves the terms of any and all offer letters, employment agreements, severance agreements, change-in-control agreements, indemnification agreements and other material agreements between us and our executive officers. In addition, the GNC Committee administers our stock incentive compensation and equity-based plans.

The GNC Committee makes recommendations to the Board concerning all facets of the director nominee selection process. Generally, the GNC Committee identifies candidates for director nominees in consultation with management and the independent members of the Board, through the use of search firms or other advisers, through the recommendations submitted by shareholders or through such other methods as the GNC Committee deems to be helpful to identify candidates. Once candidates have been identified, the GNC Committee confirms that the candidates meet the independence requirements and qualifications for director nominees established by the Board. The GNC Committee may gather information about the candidates through interviews, questionnaires, background checks, or any other means that the GNC Committee deems to be helpful in the evaluation process. The GNC Committee meets to discuss and evaluate the qualities and skills of each candidate, both on an individual basis and taking into account the overall composition and needs of the Board. Upon selection of a qualified candidate, the GNC Committee would recommend the candidate for consideration by the full Board.

In considering whether to include any particular candidate in the Board's slate of recommended director nominees, the Board will consider the candidate's integrity, education, business acumen, knowledge of our business and industry, experience, diligence, conflicts of interest and the ability to act in the interests of all shareholders. As a matter of practice, the Board considers the diversity of the backgrounds and experience of prospective directors as well as their personal characteristics (e.g., gender, ethnicity, age) in evaluating, and making decisions regarding, Board composition, in order to facilitate Board deliberations that reflect a broad range of perspectives. The Board does not assign specific weights to particular criteria and no particular criterion is a prerequisite for each prospective nominee. We believe that the backgrounds and qualifications of our directors, considered as a group, should provide a composite mix of experience, knowledge and abilities that will allow the Board to fulfill its responsibilities.

The GNC Committee will consider director candidates who are recommended by our shareholders. Such recommendation for nomination must be in writing and include the following:

- the name and address of the shareholder making the recommendation;
- the number of shares of Common Stock that such shareholder owns beneficially and holds of record;
- the name and address of the individual recommended for consideration as a director nominee;
- the principal occupation and experience of the director nominee;

- the total number of shares of Common Stock that the shareholder making the recommendation will vote for the director nominee;
- a written statement from the shareholder making the recommendation stating whether the director nominee has indicated his or her willingness to serve if elected and why such recommended candidate would be able to fulfill the duties of a director; and
- any other information regarding the director nominee that is required to be included in a proxy statement filed pursuant to the rules of the SEC.

Nominations must be sent to the GNC Committee by U.S. mail, courier or expedited delivery service to InVivo Therapeutics Holdings Corp., One Broadway, 14th Floor, Cambridge, Massachusetts 02142, Attn: Chair, GNC Committee. The chair of the GNC Committee will then provide the nomination to the GNC Committee for consideration. Assuming that the required material has been provided on a timely basis, the GNC Committee will evaluate shareholderrecommended candidates by following substantially the same process, and applying substantially the same criteria, as it follows for candidates submitted by others.

Our Board's Role in Risk Oversight

We are still a development stage company and as such have not yet developed a risk management policy or procedure. Generally, the entire Board, the Audit Committee and the GNC Committee are involved in overseeing our major risk exposures and monitor and assess those risks in reviews with management and with our outside advisors and independent registered public accounting firm. The Audit Committee reviews regulatory risk, operational risk and enterprise risk, particularly as they relate to financial reporting, on a regular basis with management, our independent registered public accounting firm and our outside consultants and advisors. In its regular meetings, the Audit Committee discusses the scope and plan for the internal audit and includes management in its review of accounting and financial controls, assessment of business risks and legal and ethical compliance programs. The GNC Committee monitors our governance and succession risk and our compensation policies and related risks by review with management and outside advisors.

Shareholder Communications with the Board

Shareholders may communicate with the Board by sending written communications to the Board or any individual member of the Board to the following address: Board, c/o Secretary, InVivo Therapeutics Holdings Corp., One Broadway, 14th Floor, Cambridge, Massachusetts 02142. The Secretary will forward all such correspondence accordingly, except for mass mailings, job inquiries, surveys, business solicitations or advertisements, personal grievances, matters as to which we tend to receive repetitive or duplicative communications, or patently offensive or otherwise inappropriate material.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act requires our directors and executive officers and persons who own more than 10% of a registered class of our equity securities (collectively, "Reporting Persons") to file reports of beneficial ownership and changes in beneficial ownership with the SEC. Based solely upon review of copies of such reports, or other written representations from Reporting Persons, we believe that, during fiscal 2010, all Reporting Persons complied with all applicable requirements of Section 16(a) of the Exchange Act. There are no known failures to file a required Form 3, Form 4 or Form 5.

Code of Ethics

On December 10, 2010, our Board of Directors adopted a Code of Business Conduct and Ethics that applies to, among other persons, members of our Board of Directors, officers, employees, contractors, consultants and advisors. A copy of the Company's Code of Business Conduct and Ethics is posted on the Company's website at *www.invivotherapeutics.com*. We intend to satisfy the disclosure requirement regarding any amendment to, or

waiver of, a provision of the Code of Business Conduct and Ethics applicable to the Company's principal executive officer or its senior financial officers (principal financial officer and controller or principal accounting officer, or persons performing similar functions) by posting such information on our website.

Item 11. EXECUTIVE COMPENSATION

Summary Compensation Table

In connection with the consummation of the reverse merger with InVivo, InVivo's Chief Executive Officer, Frank M. Reynolds, became the Chief Executive Officer of the Company. The following summary compensation table sets forth the compensation paid for services rendered to InVivo and the Company during the past two fiscal years by its Chief Executive Officer. There were no other executive officers during the past two fiscal years. All information relating to option awards reflects the exchange of InVivo options for our options in the merger.

Summary Compensation Table

Name and Principal Position	Fiscal Year	Salary	Bonus	Option/SAR Awards(1)(2)	All Other Compensation	Total
Frank Reynolds	2010	\$375,000	\$150,000			\$ 525,000
Chief Executive Officer	2009	\$275,000	\$ 40,000	\$ 350,418	—	\$ 665,418

(1) The amounts shown in this column represent the aggregate grant date fair value of awards computed in accordance with Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") Topic 718, not the actual amounts paid to or realized by the Named Executive Officer during fiscal 2010 and fiscal 2009. FASB ASC Topic 718 fair value amount as of the grant date for stock options generally is spread over the number of months of service required for the grant to vest.

(2) The fair value of each stock option award is estimated as of the date of grant using the Black-Scholes valuation model. Additional information regarding the assumptions used to estimate the fair value of all stock options awards can be found in the section entitled "Stock-Based Compensation" under Item 7—Management's Discussion and Analysis of Financial Condition and Results of Operations contained in our Annual Report on Form 10-K for fiscal 2010.

Agreements with Officers and Directors

We entered into an amended and restated executive employment agreement (the "Employment Agreement") with Mr. Reynolds on March 15, 2011. The Employment Agreement, among other things, established Mr. Reynolds' compensation as follows: (i) annual base salary of \$477,000; (ii) up to \$3,200 per month for living expenses for the time period of January 2011 through December 2012; (iii) annual compensation for other fringe benefits approved in the amount of \$19,900 per year; and (iv) an annual bonus, with a 2011 target of \$238,500. Mr. Reynolds' bonus payment is subject to the achievement of certain corporate objectives for fiscal year 2011, each of which will entitle him to a corresponding percentage of the target.

Mr. Reynolds was also granted a nonqualified stock option to purchase 250,000 shares of Common Stock under the 2010 Plan at an exercise price of \$1.20, which is equal to the closing price of the Common Stock on the date of execution of the Employment Agreement and the date the stock option was granted (the "Date of Grant"). This stock option shall vest and become exercisable as to 25% of the shares subject to the option on each of the first four anniversaries of the Date of Grant, provided that Mr. Reynolds remains an employee, consultant or director of the Company on each vesting date. The option is not exercisable until shareholder approval of the 2010 Plan has been obtained and a registration statement on Form S-8 registering the shares issued or available for issuance under the 2010 Plan has been filed with the SEC.

Outstanding Equity Awards at 2010 Fiscal Year-End

The following table summarizes the equity awards made to our Named Executive Officer that were outstanding at December 31, 2010.

	No. of	No. of		
	Securities	Securities		
	Underlying	Underlying		
	Unexercised	Unexercised	Option	Option
	Options (#)	Options (#)	Exercise	Expiration
Name	Exercisable	Unexercisable	Price	Date
Frank Reynolds(1)	196,231	588,693	\$ 0.91	12/12/2019

(1) The options were granted on December 12, 2009. 196,231 shares vested on December 12, 2010. An additional 196,231 shares will vest on each of the second, third and fourth anniversaries of the date of grant.

Potential Payments upon Termination or Change-in-Control

Under the Employment Agreement, if Mr. Reynolds' employment is terminated by us without cause, or by Mr. Reynolds as a result of a constructive termination by us, or as a result of Mr. Reynolds' death or disability, then we are obligated to pay severance (consisting of base salary in effect at the time of termination) to Mr. Reynolds (or Mr. Reynolds' legal representatives) for a period of 18 months. In addition, if Mr. Reynolds' employment is terminated by us without cause, or by Mr. Reynolds as a result of a constructive termination by us, we will be obligated to pay Mr. Reynolds his target bonus, prorated based on the number of days of such fiscal year that have elapsed as of the termination date, as well as up to 18 months of health insurance benefits. Severance payments are contingent on execution of a general waiver and release of claims against us and certain of our affiliates, and are in addition to accrued obligations to Mr. Reynolds unpaid by us prior to the time of termination, death or disability. The Employment Agreement also contains various restrictive covenants, including covenants relating to non-competition, non-solicitation, confidentiality and cooperation.

Director Compensation For Fiscal 2010

The following table sets forth compensation earned and paid to each non-employee director of the Company for service as a director during fiscal 2010.

Name	Earned or d in Cash (\$)	Stock Awards (\$)	Option Awards (\$)(1)	All Other Compensation (\$)	Total (\$)
George Nolen(2)	\$ 2,000	—	\$71,520	—	\$73,520
Christi M. Pedra(3)	\$ 2,000	—	\$71,520	—	\$73,520
Richard J. Roberts(4)	\$ 2,000	_	\$71,520	_	\$73,520
Adam K. Stern(5)	\$ 1,000	_	\$71,520	—	\$72,520

(1) The amounts shown in the "Option Awards" column represent the aggregate grant date fair value of awards computed in accordance with ASC 718, not the actual amounts paid to or realized by the directors during fiscal 2010.

(2) As of December 31, 2010, Mr. Nolen held options (vested and unvested) to purchase an aggregate of 173,934 shares of our Common Stock.

(3) As of December 31, 2010, Ms. Pedra held options (vested and unvested) to purchase an aggregate of 173,934 shares of our Common Stock.

(4) As of December 31, 2010, Mr. Roberts held options (vested and unvested) to purchase an aggregate of 917,547 shares of our Common Stock.

(5) As of December 31, 2010, Mr. Stern held options (vested and unvested) to purchase an aggregate of 50,000 shares of our Common Stock.

On December 10, 2010, based upon the recommendation of the GNC Committee, the Board adopted a compensation policy for non-employee directors. The policy provides that each non-employee director shall be paid an annual retainer of \$25,000 per year (paid quarterly and delivered at each regularly scheduled quarterly Board meeting). In addition, the policy provides that the lead independent director, chairman of the GNC Committee and the chairman of the Audit Committee shall each receive an additional annual fee of \$5,000 (paid quarterly and delivered at each regularly scheduled quarterly Board meeting). Each non-employee director shall also receive \$1,000 for each in-person Board meeting attended, \$500 for each telephonic meeting of the Board attended, and \$500 for each committee meeting attended. Each non-employee director will also receive an annual grant, on December 10 of each calendar year, of a nonqualified stock option under the 2010 Plan to purchase up to 50,000 shares of Common Stock at an exercise price equal to the closing price of the Common Stock on the date of grant (the "Director Option Date"), and that such option shall be exercisable as to 1/12 of the original number of shares subject to the option each monthly anniversary of the Director Option Date and shall be exercisable as to an additional 1/12 of the original number of shares subject to the option each monthly anniversary thereafter until fully vested on the 12 month anniversary of the Director Option Date, provided that such director remains a director of the Company on each such vesting date, provided, however, no option may be exercised until our shareholders approve the 2010 Plan, and we file a registration statement on Form S-8 with the SEC, registering the shares underlying such stock options. On December 10, 2010, we issued stock options for 50,000 shares exercisable at \$2.26 per share to each of George Nolen, Rich Roberts, Christi Pedra and Adam Stern. The aggregate fair value for the 200,000 shares granted was \$286,080.

Item 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS.

Security Ownership of Certain Beneficial Owners and Management

The following table sets forth certain information as of March 28, 2011, with respect to the beneficial ownership of our Common Stock by the following:

- each person known by us to beneficially own more than 5% of the outstanding shares of our Common Stock;
- each of the members of our Board;
- our Chief Executive Officer and Chief Financial Officer, who is our most highly compensated executive officer (the "Named Executive Officer"); and
- all of the current executive officers and members of our Board as a group.

Unless otherwise indicated in the footnotes to the following table, each person named in the table has sole voting and investment power and that person's address is c/o InVivo Therapeutics Holdings Corp., One Broadway, Cambridge, Massachusetts 02142. Shares of Common Stock subject to options or warrants currently exercisable or exercisable within 60 days of March 28, 2011 are deemed outstanding for computing the share ownership and percentage of the person holding such options and warrants, but are not deemed outstanding for computing the percentage of any other person. The percentage ownership of Common Stock of each person or entity named in the following table is based on 51,674,712 shares of Common Stock outstanding as of March 28, 2011, plus any shares subject to options or warrants currently exercisable or exercisable within 60 days of March 28, 2011 held by such person.

Frank Reynolds(1)(2)	15,343,891	29.6%
Robert S. Langer	8,262,360	16.0%
Kevin Kimberlin(3)	7,066,721	12.4%
Adam K. Stern(1)(4)	2,289,722	4.4%
Richard J. Roberts(1)(5)	805,580	1.5%
George Nolen(1)(6)	50,984	*
Christi Pedra(1)(7)	81,968	*
All directors and executive officers as a group (5 persons)	18,572,145	35.1%

- * Less than one percent
- (1) Officer and/or director.
- (2) Represents (i) 15,147,660 shares of Common Stock and (ii) 196,231 shares issuable upon the exercise of stock options.
- (3) Represents (i) 1,947,321 shares owned by Optical Partners, LLC and (ii) 5,119,400 shares underlying warrants held by Spencer Trask Ventures, Inc.
- (4) Represents (i) 500,083 shares owned by Adam Stern; (ii) 40,000 shares underlying warrants owned by Adam Stern; (iii) 801,507 shares owned by ST Neuroscience Partners, LLC; (iv) 150,000 shares underlying warrants owned by ST Neuroscience Partners, LLC; (v) 475,079 shares owned by Pavilion Capital Partners, LLC; and (vi) 323,053 shares owned by Piper Venture Partners, LLC.
- (5) Represents shares issuable upon the exercise of stock options.
- (6) Represents (i) 10,000 shares underlying warrants, (ii) 10,000 shares of Common Stock and (iii) 30,984 shares issuable upon the exercise of stock options.
- (7) Represents (i) 61,968 shares issuable upon the exercise of stock options, (ii) 10,000 shares underlying warrants and (iii) 10,000 shares of Common Stock.

Equity Compensation Plan Information

The following table summarizes certain information regarding our equity compensation plans as of December 31, 2010:

	Number of securities to be issued upon exercise of outstanding options, warrants and	Weighted- average exercise price of outstanding options, warrants and		Number of securities remaining available for future issuance under equity compensation
Plan Category	rights	rigl	ıts	plans
Equity compensation plans approved by security holders	5,915,557	\$	\$.86	0
Equity compensation plans not approved by security holders	280,000		2.26	3,220,000
Total	6,195,557	\$	0.59	3,220,000

Item 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE.

Certain Relationships and Related Transactions

The Audit Committee reviews and oversees all related party transactions on an ongoing basis. A "related-party transaction" is a transaction that meets the minimum threshold for disclosure in the proxy statement under the relevant SEC rules (generally, transactions involving amounts exceeding the lesser of \$120,000 or one percent of the average of our total assets at year end for the last two completed fiscal years in which a "related person" or entity has a direct or indirect material interest). "Related persons" include our executive officers, directors, 5% or more beneficial owners of our Common Stock, immediate family members of these persons and entities in which one of these persons has a direct or indirect material interest. When a potential related-party transaction is identified, management presents it to the Audit Committee to determine whether to approve or ratify it.

The Audit Committee reviews the material facts of any related-party transaction and either approves or disapproves of entering into the transaction. In the course of reviewing the related-party transaction, the Audit Committee considers whether (i) the transaction is fair and reasonable to us, (ii) under all of the circumstances the transaction is in, or not inconsistent with, our best interests, and (iii) the transaction will be on terms no less favorable to us than we could have obtained in an arms'-length transaction with an unrelated third party. If advance approval of a related-party transaction is not feasible, then the transaction will be considered and, if the Audit Committee determines it to be appropriate, ratified by the Audit Committee. No director may participate in the approval of a transaction for which he or she is a related party.

When a related-party transaction is ongoing, any amendments or changes are reviewed and the transaction is reviewed annually for reasonableness and fairness to us.

Transactions with Our Shareholders

Forward Split, Split-Off and Share Cancellation

Our Common Stock was forward-split on a 2.02898 for 1 basis effective October 22, 2010 so that there were 6,999,981 shares of our Common Stock issued and outstanding before taking into account the issuance of shares of Common Stock to purchasers of units in our private placement and in the merger and after giving pro forma effect to the split-off, as discussed below.

Simultaneously with the closing of the merger, we transferred all of our pre-merger operating assets and liabilities to DSSC and split-off DSSC through the sale of all of the outstanding capital stock of DSSC (the "Split-Off"). In connection with the Split-Off, 14,747,554 shares of Common Stock held by the Split-Off shareholders were surrendered and cancelled without further consideration, other than the receipt of DSSC shares. An additional 1,014,490 shares of Common Stock were cancelled by a shareholder for no consideration.

Transactions with Spencer Trask and its Related Parties

Spencer Trask acted as finder to InVivo in connection with its sale of \$500,000 of principal amount of its bridge notes, which was consummated in September 2010. We issued investors participating in this bridge financing warrants to purchase an aggregate of 500,000 shares of our Common Stock at a price of \$1.00 per share. The warrants have a term of five years and are fully exercisable. The bridge notes were converted into units in our private placement. Spencer Trask earned warrants (which are identical to the warrants issued to investors) to purchase 100,000 shares of Common Stock at a price of \$1.00 per Share as compensation for acting as a finder in the bridge financing. Affiliates of Spencer Trask purchased \$150,000 of bridge notes in the bridge financing.

In September 2010, several related parties to Spencer Trask purchased an aggregate of 3,895,643 shares of Common Stock (post-split) from various shareholders. The aggregate purchase price paid to such shareholders by the related parties for such shares was approximately \$49,000. Adam K. Stern, Senior Managing Director of Spencer Trask and its designee to serve on our Board of Directors, along with certain entities in which Mr. Stern is the beneficial owner, owns 1,948,322 of these shares (post-split). In addition, Optical Partners, an entity beneficially owned by Kevin Kimberlin, the Chairman of Spencer Trask & Co., Inc., the parent corporation of Spencer Trask owns 1,947,321 of these shares (post-split).

We engaged Spencer Trask as our exclusive placement agent in connection with our private placement. For its services, we paid Spencer Trask (i) a cash fee equal to 10% of the gross proceeds raised in our private placement (\$1,300,000) and (ii) a non-accountable expense allowance equal to 3% of the gross proceeds raised in our private placement (\$390,000). In addition, we granted to Spencer Trask or its designees, for nominal consideration, five-year warrants to purchase (i) 2,600,000 shares of Common Stock at an exercise price of \$1.00 per share and (ii) 2,600,000 shares of Common Stock at an exercise price of \$1.40 per share.

We have agreed to engage Spencer Trask as our warrant solicitation agent in the event we elect to call the warrants issued in the private placement for redemption and in such case shall pay a warrant solicitation fee to Spencer Trask equal to five (5%) percent of the amount of funds solicited by Spencer Trask upon the exercise of the warrants following such redemption.

Spencer Trask was granted the right to designate one member to our Board of Directors for a period of two years following the closing of the private placement and has designated Adam K. Stern to fill such Board seat.

We have also agreed to pay Spencer Trask compensation of \$5,000 per month for a period of two years for services relating to strategies to maximize shareholder value; and we have entered into a non-exclusive finder's fee agreement with Spencer Trask providing that if Spencer Trask shall introduce us to a third party that consummates certain investment or business combination transactions with us during the eighteen (18) month period following the final closing of the private placement, Spencer Trask will be paid a finder's fee, payable in cash at the closing of such transaction, equal to 7% of the first \$1 million of consideration paid by or to us, plus 6% of the next \$1 million of consideration paid by or to us, plus 5% of the next \$5 million of the consideration paid by or to us, plus 4% of the next \$1 million paid by or to us, plus 3% of the next \$1 million paid by or to us, plus 2.5% of any consideration paid by or to us in excess of \$9 million. Spencer Trask will not be entitled to a finder's fee with respect to any transaction entered into with any party with whom we had a pre-existing relationship prior to the date of the specific introduction and who was not introduced to us by Spencer Trask.

Furthermore, we granted Spencer Trask a preferential right of first refusal to act as agent with respect to future private placements of our securities for a period of eighteen (18) months from the date of the final closing of the private placement.

We agreed to indemnify Spencer Trask and other broker-dealers who are FINRA members selected by Spencer Trask to offer and sell units in the private placement, to the fullest extent permitted by law for a period of four (4) years from the closing of the private placement, against certain liabilities that may be incurred in connection with the private placement, including certain civil liabilities under the Securities Act, and, where such indemnification is not available, to contribute to the payments Spencer Trask may be required to make in respect of such liabilities. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to Spencer Trask, pursuant to the foregoing provisions or otherwise, we have been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable.

Registration Rights Agreement

We were required to file within 90 days of the date of the final closing of the private placement (the "Filing Deadline"), a registration statement registering for resale all shares of Common Stock issued in the private placement, including Common Stock (i) included in the units; and (ii) issuable upon exercise of the warrants. The holders of any registrable securities removed from the registration statement as a result of a Rule 415 or other comment from the SEC shall have "piggyback" registration rights for the shares of Common Stock or Common Stock underlying such warrants with respect to any registration statement filed by us following the effectiveness of the registration statement which would permit the inclusion of these shares. We have agreed to use our reasonable efforts to have the registration statement declared effective within 180 days of filing the registration statement (the "Effectiveness Deadline"). We filed a registration statement for these securities on February 1, 2011, prior to the Filing Deadline.

If the registration statement is not declared effective on or before the Effectiveness Deadline, we shall pay to each holder of registrable securities an amount in cash equal to one-half of one percent (0.5%) of such holder's investment on every thirty (30) day anniversary of such Effectiveness Deadline failure until such failure is cured. The payment amount shall be prorated for partial thirty (30) day periods. The maximum aggregate amount of payments to be made by us as the result of such Effectiveness Deadline failure shall be an amount equal to 9% of each holder's investment amount. Notwithstanding the foregoing, no payments shall be owed with respect to any period during which all of the holder's registrable securities may be sold by such holder under Rule 144 or pursuant to another exemption from registration. Moreover, no such payments shall be due and payable with respect to any registrable securities we are unable to register due to limits imposed by the SEC's interpretation of Rule 415 under the Securities Act.

We shall keep the registration statement "evergreen" for one (1) year from the date it is declared effective by the SEC or until Rule 144 of the Securities Act is available to investors with respect to all of their shares, whichever is earlier.

Transactions between InVivo and its CEO

Beginning on December 31, 2005, InVivo's CEO and majority shareholder, Frank M. Reynolds, made a series of advances to InVivo to fund its continuing operations until it raised additional capital. Interest accrued on these advances at an annual rate of 8%. The largest aggregate amount of this indebtedness outstanding since the beginning of the fiscal year ended December 31, 2010 was \$145,985. Interest payments totaling \$2,373 were made during the fiscal year ended December 31, 2010. All amounts advanced to InVivo were paid back to Frank M. Reynolds before consummation of the merger.

Lock-ups

Officers, directors and holders of 5% or more of our Common Stock and certain employees and affiliates of Spencer Trask have agreed to "lock-up" and not sell or otherwise transfer or hypothecate any of their shares for a term equal to the earlier of (i) twelve (12) months from the closing date of the merger; or (ii) six (6) months following the effective date of the registration statement registering the shares of Common Stock that were sold in the private placement.

Independence of Members of the Board

We are not currently listed on any national securities exchange or in an inter-dealer quotation system that has a requirement that the Board of Directors be independent. However, in evaluating the independence of its members and the composition of the committees of the Board of Directors, the Board utilizes the definition of "independence" as that term is defined by the listing standards of the Nasdaq Stock Market and the applicable SEC rules, including the rules relating to the independence standards of an audit committee and the non-employee director definition of Rule 16b-3 promulgated under the Securities Exchange Act of 1934, as

amended (the "Exchange Act"). Using these standards, the Board of Directors determined that Messrs. Nolen and Roberts and Ms. Pedra are currently "independent" directors. The Board determined that Mr. Stern is not independent as a result of our payments to Spencer Trask and that Mr. Reynolds is not independent as a result of his employment relationship with the Company.

Item 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

Independent Registered Public Accounting Firm Fees

Audit Fees:

2010 Audit Fees: The aggregate audit fees billed by Wolf & Company, P.C. in 2010 was \$49,500. The aggregate audit fees billed by Sherb & Co., LLP in 2010 was \$19,500. Audit fees consist of fees incurred for professional services rendered for the audit of consolidated financial statements, for reviews of our interim consolidated financial statements included in our quarterly reports on Form 10-Q and for services that are normally provided in connection with statutory or regulatory filings or engagements.

2009 Audit Fees: The aggregate audit fees billed by Sherb & Co., LLP in 2009 was \$19,500.

Audit Related Fees:

2010 Audit Related Fees: The aggregate audit related fees billed by Wolf & Company, P.C. in 2010 was \$8,500 related to review of financial information and consent in conjunction with Form 8-K and Form S-1 filings. Sherb & Co., LLP did not bill us for any audit related services in addition to the fees reported under "Audit Fees" above.

2009 Audit Related Fees: Sherb & Co., LLP did not bill us for any audit related services in addition to the fees reported under "Audit Fees" above.

Tax Fees:

2010 Tax Fees: Wolf & Company, P.C. and Sherb & Co., LLP did not bill us for any tax related services in 2010.

2009 Tax Fees: Sherb & Co., LLP did not bill us for any tax related services in 2009.

All Other Fees:

2010 Other Fees: There were no other fees paid to Wolf & Company, P.C. and Sherb & Co., LLP in 2010.

2009 Other Fees: There were no other fees paid to Sherb & Co., LLP in 2009.

Policy on Audit Committee Pre-Approval of Audit and Permissible Non-Audit Services of Independent Registered Public Accounting Firm

Prior to the establishment of our Audit Committee, the Board of Directors pre-approved all services provided by our independent registered public accounting firm. Our Audit Committee is now responsible for pre-approving all services provided by our independent registered public accounting firm. All of the above services and fees were reviewed and approved by the Board or the Audit Committee, as applicable, before the services were rendered.

The Audit Committee has considered the nature and amount of fees billed by Wolf & Company, P.C. and believes that the provision of services for activities unrelated to the audit is compatible with maintaining Wolf & Company, P.C.'s independence.

PART IV

Item 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

(a) Documents filed as part of this Annual Report.

(3) Exhibits:

31.1/31.2 Certification by the Principal Executive Officer and Principal Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

INVIVO THERAPEUTICS HOLDINGS CORP.

Date: April 29, 2011

By: /s/ Frank M. Reynolds

Name: Frank M. Reynolds Title: Chief Executive Officer and Chief Financial Officer (Principal Executive, Financial and Accounting Officer)

SARBANES-OXLEY SECTION 302(a) CERTIFICATION

I, Frank M. Reynolds, certify that:

1. I have reviewed this Annual Report on Form 10-K/A of InVivo Therapeutics Holdings Corp.; and

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report.

Date: April 29, 2011

/s/ Frank M. Reynolds

Frank M. Reynolds, Principal Executive Officer and Principal Financial Officer