InVivo Therapeutics Holdings Corp. (NVIV) is a Cambridge, MA-based research and clinical-stage biomaterials and biotechnology device company founded to develop and commercialize groundbreaking technologies for the treatment of spinal cord injury (SCI). Currently, there are no treatment options for SCI patients to successfully restore function following a spinal cord injury. Existing treatments consist of a collection of approaches that focus only on symptoms of SCI, such as decompression and mechanical stabilization of the spinal cord, rather than on the underlying pathology. InVivo intends to develop its novel investigational Neuro-Spinal Scaffold™ to treat acute SCI, and Bioengineered Neural Tissue™ to treat chronic SCI. InVivo’s mission is to redefine the life of the SCI patient.

Select Financials

<table>
<thead>
<tr>
<th>NasdaqGM:</th>
<th>NVIV</th>
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<tr>
<td><strong>Stock Price</strong></td>
<td>$8.20</td>
</tr>
<tr>
<td><strong>Market Cap.</strong></td>
<td>$221.44 M</td>
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<tr>
<td><strong>Outstanding</strong></td>
<td>27.0 M</td>
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<tr>
<td><strong>Cash Position</strong></td>
<td>$25.1 M</td>
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**Company Overview**

- Development programs in acute and chronic spinal cord injury (SCI)
  - Acute SCI: **Neuro-Spinal Scaffold** being investigated in a first-in-human clinical study
  - Five patients successfully implanted (Pilot Study initially planned to enroll five patients)
  - Marked clinical improvement observed in all three implanted patients with follow-up
    - Plan to incorporate Pilot Study into Pivotal Study and use single trial for approval
  - Chronic SCI: Bioengineered Neural Tissue (biomaterial plus stem cells) in development

- Significant commercial opportunity
  - 12,500 new cases of acute SCI per year in US¹/276,000 currently live with chronic SCI in US¹
  - US Total Available Market²: $600 M - 1.8 B per year for all acute SCI ♦ $>10 B for chronic SCI

- Co-founded by Robert Langer, Sc.D.: over 1,050 issued and pending medical patents
- Strong cash position – anticipate to last into Q4’16
- Strong intellectual property portfolio licensed exclusively from MIT & Boston Children’s Hospital
  - Issued patents covering Neuro-Spinal Scaffold and Neuro-Spinal Scaffold plus stem cells
- Received Humanitarian Use Device Designation in April 2013, which allows for a simpler path to approval through Humanitarian Device Exemption (demonstration of safety & probable benefit)

2. Company estimates

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Upcoming Anticipated Milestones

- Report progress of Pilot Study patients as appropriate
- Announce incorporation of Pilot Study into, and design and size of Pivotal Probable Benefit Study

Investigational Neuro-Spinal Scaffold™

**InVivo’s Pioneering Clinical Approach to Acute Spinal Cord Injury Treatment**

- Innovative surgical procedure that includes myelotomy
  - Relieves spinal cord tissue pressure with release of liquefied, necrotic tissue, resulting in cavity
  - Mild irrigation and debridement further defines the acute cavity
- **Neuro-Spinal Scaffold** implantation
  - Fills tissue void (cavity)
  - Provides structural support to surrounding viable tissue
  - Serves as locus for appositional healing
  - Provides a physical substrate for nerve sprouting
  - Preserves macroscopic spinal cord architecture

Structure of porous, biodegradable Neuro-Spinal Scaffold

In addition to the historical information herein, this fact sheet contains forward-looking statements within the meaning of the “safe harbor” provisions of the Private Securities Litigation Reform Act of 1995. These statements can be identified by words such as “believes,” “anticipates,” “expects,” “estimates,” “intends,” “may,” “should,” “seeks,” and similar expressions, and include statements regarding timing of anticipated milestones, development of its clinical programs, and future clinical studies. These statements are based on our current expectations, and are subject to a number of risks and uncertainties that could cause actual events or results to differ materially from those reflected in these forward-looking statements. More detailed information on risk factors that could affect InVivo’s actual results are described in InVivo’s filings with the SEC, including its most recent annual report on Form 10-K, and subsequent quarterly reports on Form 10-Q. InVivo disclaims any obligation to update these forward-looking statements.
Pioneering Novel Clinical Approaches for the Treatment of Spinal Cord Injury

Mark Perrin, Chief Executive Officer & Chairman of the Board
Tom Ulich, M.D., Chief Scientific Officer
Christopher McNulty, SVP, Business Development & Investor Relations
Steven McAllister, Chief Financial Officer
William D’Agostino, SVP, Operations
Lorianne Masuoka, M.D., Chief Medical Officer
Kristin Neff, VP, Clinical Operations & Project Management
Tamara Joseph, SVP, General Counsel/Chief Compliance Officer
Lisa Crockett, VP, Regulatory Affairs & Reimbursement Planning

American Spinal Injury Association Impairment Scale (AIS)

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description (Abridged)</th>
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<tbody>
<tr>
<td>A</td>
<td>Complete – No motor or sensory function preserved in sacral segments (S4-5)</td>
</tr>
<tr>
<td>B</td>
<td>Sensory Incomplete – Sensory but not motor function preserved below level of injury and includes sacral segments</td>
</tr>
<tr>
<td>C</td>
<td>Motor Incomplete – Motor function preserved below level of injury; voluntary anal contraction OR sparing of motor function 3 levels below injury</td>
</tr>
<tr>
<td>D</td>
<td>Motor Incomplete – Similar to AIS C but with at least half of key muscles below injury functioning against gravity</td>
</tr>
<tr>
<td>E</td>
<td>Normal</td>
</tr>
</tbody>
</table>


Pilot Study – Marked Improvement Observed in First Three Implanted Patients to Date

- Open-label safety and feasibility study underway in acute thoracic (T3-T12/L1) with complete paralysis (AIS A) SCI patients
  - Ten patient Pilot Study
  - Plan to expand and incorporate Pilot Study into the Pivotal Probable Benefit Study and to use a single study for HDE approval
- Five patients successfully implanted to date
  - First patient
    - Improved from AIS A to C in one month – <5% of AIS A patients with a T10-T12 injury progress to AIS C or D in one month1 ♦
      - Substantial lower limb motor and sensory improvement through six months ♦
      - Regained bowel function and improved bladder function
  - Second patient
    - Remains AIS A ♦
    - Exhibited marked improvement in trunk stability, self care, mobility, and bowel and bladder function in three months ♦
    - Exhibited marked improvement in sensory function with partial sensation five dermatomes lower on one side in six months
  - Third patient
    - Improved from AIS A to B (regained sacral sensation) with improved bladder function in one month – <4% of patients with high thoracic injury progress to AIS A or B in one month1 ♦
      - Marked sensory improvement from mid-chest to mid-abdomen at three months.
  - Fourth and fifth patients
    - No follow-up data reported to date

Bioengineered Neural Tissue™ for Chronic SCI

- Therapeutic options are limited for chronic SCI
- Neural stem cell (NSC) transplantation offers therapeutic promise but existing delivery systems and vehicles are not ideal
- Proprietary biomaterials are being evaluated for neural stem cell (NSC) transplantation into chronically-injured spinal cord
  - Evaluating surgically-implanted and minimally-invasive biomaterials
- Many potential partners produce human GMP NSCs

Human neural stem cells in combination with proprietary biomaterials

Surgically-implanted biomaterial: Neuro-Spinal Scaffold coated with NSCs that have differentiated into neurons (green) and astrocytes (red)

Minimally-invasive hydrogel biomaterial: Neurites growing out from hydrogel loaded with NSCs

Senior Management Team

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Neuro-Spinal Scaffold™ and Bioengineered Neural Tissue™ are trademarks of InVivo Therapeutics.