Steven Munevar, Ph.D. MBA

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Biosketch: Multidisciplinary life science professional experienced in early stage technology assessment, strategic innovation planning, development, and commercialization.

- ❖ Multidisciplinary background spanning engineering, biomedical science, and business management
- ❖ Entrepreneurial approach to problem solving and thrives in evolving environments with competing priorities, diverse stakeholders, and complex deliverables
- ❖ LinkedIn: www.linkedin.com/in/stevemunevar

Professional Experience

Munevar & Associates, Inc., *Founder/ Principal Consultant*, Cambridge MA (2007-Present)
Munevar & Associates, Inc. is a virtual, boutique life science strategy consultancy focused on the development and commercialization of early stage innovations.

- Specifically, the goal is to couple scientific and technical expertise, with commercialization insight and perspective, toward supporting start-up companies in the life science space.
- Project highlights include (*selected*):
    - Intellectual property projects evaluating technology capabilities and developing claims for patent application submission.
    - Market analysis of life science areas such as regenerative medicine looking at technology capabilities, market opportunities, and competitive analysis, among others: http://tinyurl.com/Stem-Cell-Technology
    - Technology translation focused on the development and commercialization of novel research tools: http://tinyurl.com/Munevar-Associates-Case-Study

Helix Bioscience Institute-HBI, *Founder/Board of Directors*, Cambridge MA (2013-Present)
The Helix Bioscience Institute-HBI is a virtual not-for-profit research initiative created to enable researchers to conduct transformative directed discovery and translational research employing a vast array of tools and resources.

- HBI seeks to bridge the gap between discovery and pre-clinical through the innovative application of large data sets, data mining, analysis tools, and optimized experimental outsourcing.
- HBI seeks to better align biomedical research and data science through educational and outreach programs toward the acceleration of therapeutics development addressing unmet (or poorly-met) healthcare need.

Science Shaping Our World-SHOW™, *Founder/Advisory Board*, Boston MA (2009-Present)
Science Shaping Our World-SHOW is an ongoing seminar and networking series/marketing platform that focused cutting edge translational life science research and development.

- SHOW's mission is to provide a stage for innovation and technologies at the cutting edge of life science translation toward realizing application potential addressing unmet (or poorly-met) healthcare need.
- SHOW events draw together a multidisciplinary audience spanning academia, industry, investment, and government among others where they can gain exposure and insight into the life science advancements poised to change our world.

Postdoctoral Research Fellow at Beth Israel Deaconess Medical Center, Boston MA (2006)
Postdoctoral Research Fellow in the department of cardiology focused on cardiovascular regulation and signal transduction. My research worked toward elucidating a mechanism by which cardiovascular smooth muscle is regulated and the impact of its regulation on hypertension and vasospasm.

- Studied the role of Calcium Calmodulin-dependent Kinase II (CAMKII) signal transduction and the role it plays in the regulation of vascular smooth muscle tone maintenance.
- Clinical goal was to identify targets for the therapeutic regulation of blood pressure following cardiac bypass surgery in at risk populations (i.e. elderly, diabetics, others).

United States Army Reserve, Devens MA (1997)
Multidisciplinary solider spanning combat arms and technical intelligence analyst.

- Combat arms and light infantry training included significant team building as well as leadership opportunities requiring focus under pressure and the ability to dynamically multitask under changing conditions.
- Military Intelligence, technical intelligence analyst, position required extensive critical thinking, technical analysis of complex systems, and cross unit collaboration as well as the written and oral presentation of findings.

Quantum Corporation, Shrewsbury MA (1996)
Research and development engineer working on the development of novel, automated, electro-deposition plating station and production processes for the clean room manufacturing of memory storage components.

- The primary project I led focused on transforming 3” diameter wafer photolithography electroplating process to a 6” modality.
- The outcome of my project was an automated 6” diameter wafer photolithography electroplating station and production process that significantly increased production output and quality of product produced.

Education

M.B.A., Worcester Polytechnic Institute, Worcester MA (2005)
Business management program with a focus on the commercialization of emerging technologies and innovations, market research, and commercial viability analysis.

- Capstone project focused on evaluating novel prototype software targeted for automated manufacturing production line development.
- Outcome of my capstone project resulted in a deep dive market analysis and product capabilities matrix (alongside competitor comparisons) that highlighted the strengths and weaknesses of the technology and created a roadmap for near term development that could lead to future successful commercialization.

Ph.D. in Biomedical Science, University of Massachusetts Medical School, Worcester MA (2003)
Focused on the elucidation of mechanical signaling events underlying cell migration using novel flexible cellular substrate coupled with quantitative live cell fluorescence microscopy

- My research led to the development of a new way to visualize mechanical signaling and cell migration called *Traction Force Microscopy*.
- Further, my research resulted in several high-impact peer-reviewed publications and the significant advancement in our understanding of mechanical cell signaling.
- NIH Pre-doctoral Fellowship award recipient.

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B.S. in Bioengineering, Western New England College, Wilbraham, MA (1995)
Applied principles of engineering towards biological systems, biomimetic materials, and biomedical devices.

- Senior Capstone Project focused on evaluating polymer gels as potential biomimetic materials for use in prosthetic limbs.
- Tau Beta Pi, National Engineering Honor Society member.

Peer Reviewed Scientific Publications

- Liu S., Sardi S., Sonom B., Zocco D., McSweeney R., Fraser A., Halleck A., Li H., Smejkal G., **Munevar S.**, Jin J., Kawai T., Ghiran I., McGrath J., Whitman M., Ng S., and Kuo P. W. *Application of a Novel Nanovolume Capillary Electrophoresis-Based Protein Analysis System in Personalized & Translational Medicine Research*. *J Bioanal Biomed* (2013) S3: 004.
- **Munevar S.,** Gangopadhyay S. S., Gallant C., Colombo B., Sellke F. W., and Morgan K. G. *CamKII T287 and T305 Regulate History-Dependent Increases in Alpha Agonist-Induced Vascular Tone*. *Journal of Cellular and Molecular Medicine* (2008) Vol. 12, No 1 p. 1-8.
- **Munevar S.,** Wang Y. L., and M. Dembo. *Regulation of Mechanical Interactions Between Fibroblasts and the Substratum by Stretch-Activated $Ca2^{+}$ Entry.* *Journal of Cell Science* (2004) Vol. 117 p. 85-92.
- **Munevar S.,** Wang Y. L., and M. Dembo. *Distinct Roles of Frontal and Rear Cell-Substrate Adhesions in Fibroblast Migration.* *Molecular Biology of the Cell* (2001) Vol. 12 p. 3947-3954.
- **Munevar S.,** Wang Y. L., and M. Dembo. *Traction Force Microscopy of Migrating Normal and H-ras Transformed 3T3 Fibroblasts.* *Biophysical Journal* (2001) Vol. 80. p. 1744-1757.

Ph.D. Thesis

- Dissertation Title: Mechanics of Fibroblast Migration (2003).
  - http://tinyurl.com/Thesis-PhD

White Papers

- Building a Biotech Start-up – A Case Study (2010).
  - http://tinyurl.com/Munevar-Associates-Case-Study
- Stem Cell Technology: Current Applications and Future Directions (2008).
  - http://tinyurl.com/Stem-Cell-Technology

Invited Interviews (*selected*)

- ***Accelerating Innovation through Convergence* (2013).**
  - http://blog.upstartlifesci.com/accelerating-innovation-through-convergence
- ***Temps, Lower Rungs Drive Local Biotech Job Creation* (2010).**
  - http://assets.bizjournals.com/boston/stories/2010/10/11/focus2.html
- ***Innovation in Life Science Technology Development and Commercialization* (2010).**
  - www.wpiventureforum.org/Images/CMS/VF/Vantage_FINAL_6-10.pdf
- ***Success With IPSCS-The Nascent Science Still Has Many Stumbling Blocks to Step Over Before Companies Can Reap the Rewards of Reprogramming* (2009).**
  - http://www.the-scientist.com/?articles.view/articleNo/27485/title/Success-with-iPSCs