



# EVADING THE VALLEY OF DEATH

## BEST PRACTICES FOR COMMERCIALIZING REHABILITATION & ASSISTIVE TECHNOLOGIES

### Program Overview

*Evading the Valley of Death* immerses the audience with the best practices for developing highly effective commercialization strategies. The Center for Translation of Rehabilitation Engineering Advances and Technology (TREAT) has developed, and will share with the audience, a Commercialization Methodology to provide a comprehensive product development pathway focused on efficiency and successful outcomes.

Translating rehabilitation research outcomes to clinical practice, and the community, is a primary focus of both innovators and funding agencies. When new technology and devices are involved, however, the path to commercialization in the rehabilitation and assistive technology community is a perilous journey marked by multiple challenges and developmental hurdles.

The majority of innovations are unable to avoid the commonly encountered market barriers and innovation hurdles that derail projects to an unrecoverable state, commonly referred as the “Valley of Death.” This workshop will provide successful strategies and tactics distilled from decades of real-world experiences to help innovators identify potential pain points and develop action plans to overcome these obstacles.

Join TREAT at



10:00 - 11:15 AM

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### Learning Objectives

- Understanding the critical product development stages for developing a rehabilitation or assistive technology device
- Effective product development strategies designed to de-risk the development profile while attracting additional funding
- Top 5 Reasons why rehabilitation technologies fail and how to mitigate those risks
- Critical characteristics of product development teams and how to build a highly effective team
- How to prioritize objectives in order to most effectively utilize available resources
- Utilizing successful funding strategies to increase product development resources



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### Outline

- Intro**      **Introduction**
  
- Part 1**      **Outlining the Commercialization Challenge**
  - Defining the commercialization process
  - Strategic overview of device manufacturing and stakeholders involved
  
- Part 2**      **Top 5 Reasons Innovations Stall**
  - Real world examples of top commercialization challenges
  - Case study outlining the results of TREAT's commercialization research
  
- Part 3**      **Commercialization Best Practices**
  - Outlining proven strategies for innovators developing devices
  - Successful tactics utilized by TREAT members during their device development
  - Best practices for commercialization
  
- Conclusion**      **Discussion & Questions**

### Presenters



**Richard Greenwald, PhD**  
President, Simbex | Co-Director, TREAT

Dr. Greenwald is an entrepreneur and biomedical engineer with over 15 years of experience in research and development in sports and orthopedic biomechanics. He founded Simbex, a product development company, in 2000 and has been directly involved in product development for numerous biofeedback and data acquisition products for the medical and rehabilitation industries. He and Simbex have received multiple awards from the National Institutes of Health, National Science Foundation, and Department of Defense for product development through the Small Business Innovation Program (SBIR). He co-founded iWalk, Inc. (now BionX) with Hugh Herr, PhD, to commercialize novel robotic prosthetic technologies, and was founding CEO from 2006-2009. Dr. Greenwald previously started and managed the US Division: Orthopedics, Sports, and Rehabilitation, for TÜV Product Service, a multinational firm specializing in product testing and regulatory certification of products for sale in the European Union. He recently served as a member of the National Advisory Child Health and Human Development Council of the Eunice Kennedy Shriver National Institute of Child Health and Human Development, National Institutes of Health, as a member of the Council of Councils, Office of the Director, National Institutes of Health and as President of the International Society for Skiing Safety. He is a Professor at Thayer School of Engineering at Dartmouth College. Dr. Greenwald is currently directing five federally funded research and development projects.



**Jonathan Lurie, MD, MS**  
Associate Professor of Medicine, Orthopaedics  
Co-Director, TREAT

Dr. Lurie is an Associate Professor of Medicine, Orthopaedics, and of The Dartmouth Institute for Health Policy and Clinical Practice (TDI) at the Geisel School of Medicine at Dartmouth. He received his BSE in Geological Engineering from Princeton, an MD from Stanford University, and a Masters Degree in Evaluative Clinical Sciences from Dartmouth. He currently practices Hospital Medicine and serves as the Interim Section Chief of Hospital Medicine at Dartmouth Hitchcock Medical Center. He has extensive experience in comparative effectiveness research as Physician Investigator on the Spine Patient Outcomes Research Trial (SPORT) and a Co-Investigator on the Multi-Centered Prospective Study of Quality of Life in Adult Scoliosis, Associate Director of the Multidisciplinary Clinical Research Center in Musculoskeletal Diseases (MCRC) at Dartmouth, and Director of the Comparative Effectiveness Core of the New England Pediatric Device Consortium (NEPDC). He has also been the Principal Investigator of randomized clinical trials of fall prevention in the elderly and decision coaching in lumbar spinal stenosis. In addition, he is Program Lead for Dartmouth-Hitchcock to the High Value Healthcare Collaborative and Director of The Dartmouth Orthopaedics Clinician/Researcher Training Program. His overarching research interests are in evidence-based decision-making and decision-based evidence-making.