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## BIOGRAPHICAL SKETCH

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NAME Lynskey, James Vincent	POSITION TITLE Research Scientist		
eRA COMMONS USER NAME			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
Duquesne University, Pittsburgh, PA	B.S.	1994	Health Sciences
Duquesne University, Pittsburgh, PA	M.P.T	1995	Physical Therapy
Georgetown University, Washington, DC	Ph.D.	2005	Neuroscience
The Biodesign Institute, Arizona State University, Tempe, AZ	Postdoc.	2005-2006	Neuroscience/ Bioengineering

### A. Positions and Honors.

#### Positions and Employment

1995-1998	Physical Therapist, Scottsdale Healthcare, Scottsdale, AZ
2000-2001	Adjunct Faculty, Marymount University, Department of Physical Therapy, Arlington, VA
2000-2002	Lab Instructor, Georgetown University Medical Center, Washington, DC
2005-2006	Adjunct Faculty, A.T. Still University, Dept. of Physical Therapy, Mesa, AZ
2006-present	Assistant Professor, Physical Therapy, A.T. Still University, Arizona School of Health Sciences, Mesa, AZ
2006-present	Assistant Research Scientist, Center for Adaptive Neural Systems, Arizona State University, Tempe, AZ

#### Honors

1990-1994	Founder's Award, Duquesne University
1994	Cum Laude, Duquesne University
2004	Honorable Mention, 18 <sup>th</sup> Annual Student Research Days Competition, Georgetown University Medical Center

### B. Selected peer-reviewed publications (in chronological order).

#### Research Articles:

**Lynskey JV**, Sandhu FA, Dai HN, McAtee M, Slotkin JR, MacArthur L, Bregman BS. Delayed application of transplants and neurotrophic factors support recovery of skilled forelimb function after cervical spinal cord injury. *Journal of Neurotrauma* 2006; 23:617-624.

Byung G. Kim, Hain Ning Dai, **James V. Lynskey**, Marietta McAtee, Barbara S. Bregman. Degradation of chondroitin sulfate proteoglycan potentiates transplant-mediated axonal remodeling and functional recovery after spinal cord injury in adult rats. *Comparative Neurology* 2006; 497:182-198.

Jung, R., A. Belanger, T. Kanchiku, **J. Lynskey**, M. Mukherjee, D. Hagner, J.J. Abbas. Hindlimb Neuromuscular Stimulation Therapy after Thoracic Contusion Injury Promotes Locomotor Recovery. Proceedings of the 11<sup>th</sup> Annual Conference of the International Functional Electrical Stimulation Society, 12<sup>th</sup>-15<sup>th</sup> September, 2006, *Miyagi-Zao, Japan*.

Kanchiku, T., **J.V. Lynskey**, T. Taguchi, J.J. Abbas and R. Jung. Rodent Model for Forelimb Neuromuscular Stimulation based Movement Therapy. (Online: [www.ifess.org](http://www.ifess.org); ISBN 4-9980783-1-3), pg. 274-276, 11<sup>th</sup> Annual Conference of the International Functional Electrical Stimulation Society, 12<sup>th</sup>-15<sup>th</sup> September, 2006, *Miyagi-Zao, Japan*.

Kanchiku T, **Lynskey JV**, Protas D, Abbas JJ, Jung R. Neuromuscular electrical stimulation induced forelimb movement in a rodent model. *J Neurosci Methods*. 2008 Jan 30;167(2):317-26.

**James V. Lynskey**, Adam Belanger, and Ranu Jung. Activity Dependent Plasticity in Spinal Cord Injury. *Journal of Rehabilitation Research and Development*. Accepted 2007, in press.

#### Book Chapters:

Bregman BS, Coumans JV, Dai HN, Kuhn PL, **Lynskey JV**, McAtee M, Sandhu F. Transplants and neurotrophic factors increase regeneration and recovery of function after spinal cord injury. *Progress in Brain Research* 2002; 137:257-73.

Bregman, BS, Jean-Valery Coumans, Haining Dai, **James Lynskey**, Dmitri Iarikov, Marietta McAtee, and Faheem Sandhu. Recovery of Locomotion and Skilled Forelimb Function after Spinal Cord Injury in Rats: Effects of Transplants and Neurotrophic Factors. *Topics in Spinal Cord Injury Rehabilitation* 2003; 8: 52-68.

#### Abstracts:

**Lynskey J**, Sandhu FA, McAtee M, Dai HN, Bregman BS; Axonal regeneration and functional recovery after chronic cervical spinal cord injury in rats; *Society for Neuroscience Abstracts*, 193.8, 1999.

Sandhu FA, **Lynskey J**, Dai HN, McAtee M, Bregman BS; Fetal transplants and NTFs aid axonal regeneration and functional recovery in adult rats after chronic cervical spinal cord injury; *Eighth International Symposium on Neural Regeneration*, 1999.

**Lynskey JV**, Sandhu FA, McAtee M, Dai HN, Sinha M, Bregman BS; Regeneration of rubrospinal tract fibers contribute to functional recovery after chronic cervical spinal cord injury in rats; *Society for Neuroscience Abstracts*, 324.5, 2000.

**Lynskey JV**, McAtee M, Dai HN, Iarikov E, Hamers FPT, Bregman BS; Motor recovery after cervical spinal cord injury: A possible role for post-injury activity; *Society for Neuroscience Abstracts*, 498.10, 2003.

Kim BG, Dai HN, **Lynskey JV**, McAtee M, Bregman BS; Degradation of chondroitin sulfate proteoglycan potentiates transplant mediated axon growth and functional recovery after spinal cord injury in the adult rat; *Society for Neuroscience Abstracts*, 415.7, 2003.

M Mukherjee, A Belanger, T Kanchiku, **J Lynskey**, A Thota, JJ Abbas, R Jung; Functional Neuromuscular stimulation after incomplete spinal cord injury in rodents promotes recovery of locomotion; *National Neurotrauma Society 23<sup>rd</sup> Annual Meeting*; 2005.

Tsukasa Kanchiku, MD, PhD, Adam Belanger, BS, Ganapriya Venkatasubramanian, BE, Mallika Mukherjee, MS, **James V. Lynskey, PT, PhD**, Anil Thota, MS, James Abbas, PhD, Ranu Jung, PhD; Functional Neuromuscular Stimulation Therapy Promotes Recovery of Locomotion after Incomplete Spinal Cord Injury in Adult Rats; *Cervical Spine Research Society 33rd Annual Meeting*, 2005.

**James V. Lynskey**, Adam Belanger, Tsukasa Kanchiku, Ganapriya Venkatasubramanian, Mallika Mukherjee, Anil Thota, James Abbas, Ranu Jung. Therapeutic Neuromuscular Stimulation Therapy Improves Recovery of Locomotion after Incomplete Spinal Cord Injury in Adult Rats. *Eleventh International Symposium on Neural Regeneration*, 2005.

**J.V. Lynskey**, M. McAtee, H. N. Dai, E. Iarikova, F. P.T. Hamers, B. S. Bregman. Environmental Enrichment Promotes Recovery of Forelimb Movements and Supraspinal Pathway Plasticity after Cervical Spinal Cord Injury in Adult Rats. Eleventh International Symposium on Neural Regeneration, 2005.

**J. Lynskey**, T. Kanchiku, J. Abbas, R. Jung. A rodent model of forelimb neuromuscular stimulation for motor therapy. Society for Neuroscience Abstracts, 284.12 2006.

## **C. Research Support.**

### **Current Research Support**

NIH R24 HD050845      Bregman BS (PI)      7/01/06-5/30/08

Role: Pilot grant program recipient

Title of pilot grant: Identifying novel therapeutic targets for spinal cord injury: Injury and rehabilitation mediated alterations in protein expression throughout the nervous system.

Amount: \$25,000

*Adaptive Stimulator for Exercise and Rehabilitation* (PI: J.J. Abbas on subcontract; PI on primary: E. Hartman) NIH-R44-HD41820 via customKYnetics, Inc., 7/1/04-6/30/08.

Role: Physical Therapist

The major goals of this Phase II SBIR grant are to develop and test an electrical stimulator with adaptive capabilities that will be used for exercise by individuals with spinal cord injury.

### **Completed Research Support**

NIH T32 HD07459      Bregman BS (PI)      8/01/98-7/41/03

Recovery of Function after Neural Injury Training Grant

Role: Predoctoral Fellow

*Stimulation-Augmented Exercise and Neuromotor Therapy* (PI: J.J. Abbas on subcontract on Phase I SBIR to customKYnetics, Inc) NIH: 1R43HD050006-01 4/1/06-10/31/07

Role: Physical Therapist

The goal of this Phase I SBIR is to demonstrate feasibility of an exercise and therapeutic device to promote functional recovery after spinal cord injury.