

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2.
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME Patricia A. Shewokis	POSITION TITLE		
eRA COMMONS USER NAME (credential, e.g., agency login) Shewokis1	Associate Professor		
EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
East Stroudsburg State College, East Stroudsburg, PA	B.S.	1981	Health & Physical Education
East Stroudsburg University, East Stroudsburg, PA	M.S.	1984	Biophysical Human Movement
University of Georgia, Athens, GA	Ed.S.	1985	Adult Fitness
University of Georgia, Athens, GA	Ph.D.	1993	Psychology of Motor Behavior

A. Positions and Honors.**Positions and Employment**

- 1993-1999 Assistant Professor and Graduate College Faculty, Kinesiology, Bowling Green State University, Bowling Green, OH
- 1999-2001 Tenured, Associate Professor and Graduate College Faculty, Kinesiology, Bowling Green State University, Bowling Green, OH
- 2001- Associate Professor, Rehabilitation Sciences, Drexel University, Philadelphia, PA
- 2004- Tenured, College of Nursing and Health Professions, Drexel University, Philadelphia, PA
- 2005 - Graduate Support Research Faculty, College of Nursing and Health Professions, Drexel University
- 2005- Graduate Faculty, College of Nursing and Health Professions (CNHP), Drexel University
- 2006- Joint Appointment, Doctor of Nursing Practice (DrNP) faculty, CNHP Drexel University
- 2007- Joint Appointment, School of Biomedical Engineering, Science and Health Systems
- 2006- Brain Optical Sensor Research Group, School of Biomedical Engineering, Science and Health Systems
- 2007- Faculty, Neuroengineering Major Research Initiative, Drexel University
- 2008- Faculty, Human Cognitive Enhancement Major Research Initiative, Drexel University

Other Experience and Professional Memberships

- 2002- Research Consultant, Shriner's Hospital for Children, Philadelphia, PA
- 2003-2004 Director, Post-Professional Graduate Programs in Rehabilitation Sciences, Drexel University
- 2004- Statistical Consultant, Shriners Hospital for Children, Philadelphia, PA
- 2004- Statistical Consultant, College of Nursing and Health Professions, Drexel University, Philadelphia, PA
- 2004- Chair, Institutional Review Board (Social and Behavioral Research), Drexel University, Philadelphia, PA.
- 2005- Scientific Staff, Shriners Hospital for Children, Philadelphia, PA.
- 2006- Member, American Statistical Association

Honors

- 2006 National Academies Keck Futures - participant
Smart Prosthetics: Exploring Assistive Devices for the Body and Mind conference.

B. Selected peer-reviewed publications (in chronological order). Do not include publications submitted or in preparation.

- Ayaz, H, **Shewokis, PA**, Bunce, S, Schultheis, M, & Onaral B. Assessment of cognitive neural correlates for a functional near infrared-based brain computer interface system. *Lecture Notes in Computer Science and Artificial Intelligence*. (in press)
- Pierce SR, Barbe MF, Barr AE, **Shewokis PA**, & Lauer RT. Co-contraction during passive movements of the knee joint in children with cerebral palsy. *Clinical Biomechanics*.22, 1045-1048. 2007.

- Lauer RT, Smith BT, **Shewokis PA**, McCarthy JJ, & Tucker CA. Time-frequency changes in electromyographic signals after hamstring lengthening surgery in children with cerebral palsy. J Biomechanics, 2007. 40(12), 2738-2743.
- Lauer RT, Stackhouse CA, **Shewokis PA**, Tucker CA, Smith BT, & McCarthy JJ. A time-frequency based electromyographic analysis technique for use with cerebral palsy. Gait Posture. 26, 420-427: 2007.
- Stackhouse C, **Shewokis PA**, Pierce S, Smith B, McCarthy J, & Tucker CA. Gait initiation in children with cerebral palsy. Gait Posture. 2007. 26: 301-308.
- Pierce SR, Lauer RT, **Shewokis PA**, Rubertone JA, & Orlin MN. Test retest reliability of isokinetic dynamometry for the assessment to spasticity of the knee flexors and knee extensors in children with cerebral palsy. Archives Phys Med Rehab. 2006 87, 697-702.
- Shewokis PA**. Memory consolidation and contextual interference effects with learning computer games. Perc Motor Skills 2003; 97:581-589.
- Shewokis PA**, Del Rey P, Simpson KJ. A test of retroactive inhibition as an explanation of contextual interference. Res Quart Exer Sport 1998; 69:70-74.
- Shewokis PA**. Is the contextual interference effect generalizable to computer games? Perc Motor Skills 1997; 84:3-15.
- Del Rey P, **Shewokis P**. Appropriate KR summary lengths for learning timing tasks under conditions of high and low contextual interference. Acta Psych 1993; 83:1-12.

C. Research Support.

Ongoing Research Support

Federal (Onaral- PI; Pourrezaei, Bunce, K Izzetoglu and Shewokis (co-PIs)) 10/01/008-09/30/2009

The U.S. Army Medical Research and Material Command (USAMRMC)

Title: UAV Operator Training and Workload Assessment for Safe Piloting

Role: Co-Principal Investigator (20% effort)

Agency: The U.S. Army Medical Research and Material Command (USAMRMC)

Non-Federal (K Izzetoglu – PI; Pourrezaei, M Izzetoglu and Shewokis – CO- PIs) 05/30/09-05/30/10

BAE Systems Inc. – DOT – Federal Aviation Administration (FAA) Pass-Thru Grant

Title: Comparative Assessment of Cognitive Processing Demands in Data Communication and Legacy Air Traffic Control Environments.

Role: Co-Principal Investigator (10% effort)

Agency: BAE Systems Inc

Completed Research Support

Federal Lauer (PI) 07/2006 – 07/2008

R03 – Small Grants Program

Title: “Wavelet Analysis of Surface EMG in Cerebral Palsy”

Role: Co-Investigator (10% effort r)

Agency: NICHD

Non-Federal (Shewokis – PI) 01/31/2007-12/31/2008

PA Department of Health Tobacco Funds Formula

Title: “Neural Mechanisms of the Contextual Interference Effect: An fNIRs and EEG Study”

Role: Principle Investigator (10% effort)

Agency: PA Department of Health

Non-Federal (Gillespie – PI; Shewokis, Contreras-Vidal & O’Malley – Co-PIs) 05/01/2007- 05/31/2009 National Academies Keck Futures Initiative Seed Grant

Title: “Feedback Control for Smart Prosthetics: An Integrated Electrophysiological and Near-Infrared Methodology.

Role: Co-Principal Investigator (4% effort)

Agency: National Academies Keck Futures Initiative (NAFKI)