## **CURRICULUM VITAE**

# Dwight E. Waddell, PhD

**Physical Address:** 

HESRM, University of Mississippi 215 Turner Center, University, MS 38677 **Contact Information:** 

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## **ACADEMIC RECORD:**

**PhD** University of Texas at Austin, 1998
Biomedical Engineering - Neuromotor Control, Biomechanics

MS University of Texas at Austin, 1992 Biomedical Engineering - Biological Heat Transfer

<u>BS</u> Louisiana State University, 1989 Mechanical Engineering

# **EMPLOYMENT RECORD:**

•	Research Assistant Professor	University of Mississippi Computer and Information Science, School of Engineering - Graduate Faculty	2009 - present
•	Assistant Professor	University of Mississippi Exercise Science School of Applied Science - Graduate Faculty	2006 – present
•	Assistant Professor	Tulane University - Graduate Faculty	2004 – 2006
•	Research Faculty Post doc(s) Teaching Assistant Instructor	Georgia Institute of Technology Georgia Tech/Emory University University of Texas at Austin University of Texas at Austin	1999 – 2004 1997 – 1999 1995 – 1996 1994 – 1995
•	Numerical Analyst	Sematech, Inc., Austin Texas	1994 – 1995

#### **SCHOLARSHIP:**

#### Current Patents Pending - International

Snyder, G., **Waddell, D.**, and Goggans, P. (2009). Vibrotactile Stuttering Device and Methodology. International Patent filed December 4<sup>th</sup>, 2010 with the United States Patent and Trademark Office (USPTO) (RO/US) through the Office of Technology Management, University of Mississippi. International Publication Number – WO 2011/069095 A2.

(Http://www.wipo.int/patentscope/search/en/detail.jsf?docId=WO2011069095&recNum=1&maxRec=&office=&prevFilter=&sortOption=&queryString=&tab=PCT+Biblio)

#### Recent Publications

- Fei Teng, Yixin Chen, Aik Min Choong, Scott Gustafson, Christopher Reichley, Pamela Lawhead, and **Dwight Waddell**. Harmonics in Steady State Visual Evoked Potentials (SSVEP): Evoked by the Fundamental Frequency or the Artifacts of the Stimuli? *Computational Intelligence and Neuroscience*, Volume 2011, Article ID 364385, 5 pages, 2011. (doi:10.1155/2011/364385)
- 2. **Waddell, D**, Nassar, S. and Gustafson, S. Single-Case Design in Psychophysiological Research: Part Two: Statistical Analytic Approaches, *Journal of Neurotherapy*. 2011, 15(2): 160-169. (*Impact Factor: 1.77*)
- 3. Gustafson, S., Nassar, S. and **Waddell, D**. Single Case Design in Psychophysiological Research. Part I: Context, Structure, and Techniques. Journal of Neurotherapy, 2011, 15(1):1-17. (*Impact Factor: 1.77*)
- 4. M. Loftin, **D. Waddell**, J. Robinson, and S. Owens, Comparison of energy expenditure to walk or run a mile in normal weight and overweight walkers and marathon runners, *Journal of Strength Conditioning Research*, October, 2010, 24(10):2794-8. (*Impact factor: 1.39*)
- 5. Nocera J, Buckley T, **Waddell D**, Okun M, and Hass C. The relationships of knee extensor strength and function in Parkinson's disease, *Archives of Physical Medicine And Rehabilitation*, Volume 91, Issue 4, April 2010, Pages 589. (*Impact Factor: 2.761*)

# Recently Published Proceedings and Abstracts – Peer reviewed 2011

# Accepted - Conference Pending:

1. Gustafson, S., Nassar, S. and **Waddell, D**. The remediation of idiopathic syncope in an adult female using spectral EEG neurotherapy, 33<sup>rd</sup> Annual Meeting & Scientific Sessions of the Society of Behavioral Medicine, New Orleans, Louisiana from April 11-14, 2012.

- 2. Abigail Gamble, Jeffrey S. Hallam, John Bentley, and **Dwight Waddell,** The Role of Policy and the Built Environment on Children's In-School Physical Activity in the Mississippi Delta, 2012 Active Living Research (ALR) Annual Conference, March 12-14, 2012 in San Diego, CA.
- 3. Abigail Gamble, Jeffrey S. Hallam, John Bentley, and **Dwight Waddell**. In-School Physical Activity Opportunity and Physical Activity Levels of Elementary School-Aged Children in the Mississippi Delta, *139th Annual Meeting American Public Health Association*, Washington DC, October 29, November 2, 2011.
- 4. Gamble A, **Waddell D**, Ford-Wade A, Bentley JP, and Hallam JS. Best Practices to Evaluate the Impact of School Health Policy on Childhood Obesity. *139th Annual Meeting American Public Health Association*, Washington DC, October 29, November 2, 2011.
- 5. Gamble A, **Waddell D**, Bentley JP, and Hallam JS. Policy and environmental predictors of inschool physical activity for elementary school-aged children. The Obesity Society, Orlando, FL, October 2011.
- 6. Gamble A, **Waddell D**, Ford MA, Bentley JP, and Hallam JS. Obesity and health risk of children in the Mississippi Delta. American Public Health Association, *139th Annual Meeting American Public Health Association*, Washington DC, October 29, November 2, 2011.
- 7. Goldman WB, Gamble A, Valliant M, **Waddell D**, Ford-Wade MA, Hallam JS. The built environment and active commuting in a rural community, *139th Annual Meeting American Public Health Association*, Washington DC, October 29- November 2, 2011.

#### 2010

- 8. Robinson, J., **Waddell, D.**, Loftin, M., and Owens, S. Plasma Estradiol Concentrations at Rest and Exercise in Obese and Lean Women, 58th Annual Meeting and 2nd World Congress on Exercise is Medicine of the American College of Sports Medicine, Denver, Colorado, May 31 June 4, 2011
- 9. **D. Waddell**, C. Hass, R. Roemmich, I. Malaty, and D. Nuckley, A Dynamic Model Quantifying Spinal Forces During Head and Neck Tics in a Tourette Population, *15th International Congress of Parkinson's Disease and Movement Disorders*, June 2011. Toronto, Ontario, CA.
- 10. Gamble A, **Waddell D**, Ford-Wade MA, Bentley J, and Hallam J. The Role of Policy and the Built Environment on Children's In-School Physical Activity in the Mississippi Delta, *American Academy of Health Behavior*, March 2011.
- 11. **D.E. Waddell**, X. Ma and J.C. Garner Asymmetrical coordination of gait in an obese population, *Global Obesity Summit*, Jackson MS, November 2010.
- 12. Gamble, A. Ford-Wade, J. Bentley, **D. Waddell** and J.S. Hallam, The role of policy and the built environment on children's in-school physical activity in the Mississippi Delta, *Global Obesity Summit*, Jackson MS, November 2010.

- 13. M. Loftin, **D. Waddell**, J. Robinson and S. Owens, Comparison of energy expenditure to walk or run a mile in normal weight and overweight adults. *Global Obesity Summit*, Jackson MS, November 2010.
- 14. J. Robinson, **D. Waddell**, M. Loftin FACSM, S. Owens, and L. Wolff. Plasma Estradiol Concentrations at Rest and Exercise in Obese and Lean African American and Caucasian Women, *Global Obesity Summit*, Jackson MS, November 2010.
- 15. F. Teng, **D. Waddell**, S. Gustafson, , and Y. Chen. Steady State Visual Evoked Potentials by Dual Sine Waves. 48<sup>th</sup> Annual Advanced Computing Machinery Southeast Conference, August 15-17, 2010.
- 16. **D. Waddell**, A. Choong, J. Smith, and P. Lawhead. Preferred programming languages to illicit steady state visual evoked potentials from a cathode ray tube computer monitor. *Fourth International Brain Computer Interface Meeting*, Asilomar, California, May 31 June 4, 2010.
- 17. F. Teng, A. Choong, **D. Waddell**, S. Gustafson, P. Lawhead, and Y. Chen. Harmonics in SSVEP: Are They Evoked by the Fundamental Frequency or the Artifacts of the Stimuli? *Fourth International Brain Computer Interface Meeting*, Asilomar, California, May 31 June 4, 2010.
- 18. C. Reichley, **D. Waddell**, P. Lawhead, S. Gustafson, and Y. Chen. EEG Processing and Robotic Bio-Feedback Interfaces. *Fourth International Brain Computer Interface Meeting*, Asilomar, California, May 31 June 4, 2010.
- 19. Lamont, H.S., Garner, J.C., MacDonald, C.J., **Waddell, D**. and Loftin, M. (2010). Muscle activation patterns during four different isometric pull conditions with and without whole body vibration. Medicine and Science in Sports and Exercise. 42, S626.

#### **GRANTS AND CONTRACTS:**

#### Funded: Primary Investigator - Dwight Waddell

1. <u>Title</u>: Cervical Forces During Rapid Head Tics in a Tourette Syndrome Population Amount Requested = \$11,000 Date Submitted: December, 2009

Sponsor: School of Applied Sciences, University Of Mississippi

Result: **Funded** 

Funding Level and Period of Performance: summer 2010

2. <u>Title</u>: The Effects of Segmental Cooling on Muscle Endurance, Localized Blood Flow, and Interleukin-6 Production During a Fatiguing Protocol

Amount Requested = \$11,863.30 Date Submitted: October, 2007

Sponsor: Office of Research and Sponsored Projects, University of Mississippi

Result: **Funded** 

Funding Level and Period of Performance: \$11,863 for January 2008- January 2009

3. <u>Title</u>: Correlation of Structural Material Properties and Tibial Shock Attenuation in Running Shoes <u>Sponsor</u>: Merck, Schering-Plough HealthCare Products, Inc.

Amount Requested = \$37,000 Date Submitted: Dec, 2007

Result: **Funded** 

Funding Level and Period of Performance: \$37,000 for June 2007- June 2008

4. <u>Title</u>: Biomechanics and Perception Evaluations of Women Wearing Insoles for High Heels in Shoes with Various Heel Heights

Sponsor: Merck, Schering-Plough HealthCare Products, Inc.

Amount Requested = \$29,400 Date Submitted: Dec, 2006

Result: **Funded** 

Funding Level and Period of Performance: \$29,400 for June 2007- June 2008

5. <u>Title</u>: Biomechanical Evaluations of Knee Pain Orthotic Insoles Among Healthy Men and Women

Sponsor: Merck, Schering-Plough HealthCare Products, Inc.

Amount Requested = \$10,400 Date Submitted: Jan, 2007

Result: **Funded** 

Funding Level and Period of Performance: \$10,400 for May 2007- May 2008

6. <u>Title</u>: The Development of Human Upper Extremity and Avian Models Using Vicon Body Builder Software

Sponsor: Provost Office, University of Mississippi

<u>Amount Requested</u> = \$10,000 Date Submitted: November, 2006

Result: **Funded** 

Funding Level and Period of Performance: \$10,000 for June 2006-June 2007

(Grant Work Previous to the University of Mississippi): \$104,541.0

#### **Georgia Institute of Technology:**

#### Funded: Primary Investigator – Dwight Waddell

7. Title: Chinese Exercise Modalities and Motor Control in Parkinsonism

Sponsor: NIH, Centers for Alternative Medicine RO1 5 P30AT000609 sub-award, Emory University's

Center for Alternative Medicine in Neurodegenerative Disorders.

Amount Requested = \$69,600 Date Submitted: 1/22/99

Result: Funded

Funding Level and Period of Performance: \$17,397/year for 4 years (through 2004)

8. Title: Ergonomic Work Assessment System Field Studies

Sponsor: Georgia Institute of Technology's Research Corporation, Agricultural Technology Research

Program (ATRP)

<u>Amount Requested</u> = \$34,941 Date Submitted: July 1999 (through 2000)

Result: Funded

Funding Level and Period of Performance: \$34,941 for 1 year.

#### **COURSE RECORD**

#### Courses Taught (The University of Mississippi)

- Motor Control (Undergraduate/Graduate)
- Motor Behavior (Undergraduate/Graduate)
- Biomechanics (Undergraduate/Graduate)
- Biomechanics of Musculoskeletal Injury (Graduate)
- Control of Human Voluntary Movement (Graduate)
- Applied Electromyography (Undergraduate/Graduate)
- Physiology of Aging (Graduate)
- Psychobiology of Physical Activity (Graduate)
- Aging in the 21<sup>st</sup> Century (Undergraduate, ES 391 Heading)

#### PROFESSIONAL AFFILIATIONS AND ACTIVITIES:

#### **Memberships**

Society for Neuroscience Movement Disorders Society American Society of Biomechanics International Society of Posture and Gait Research Sigma Xi, The Scientific Research Society

#### Selected Ad Hoc Journal Reviewer

Gait and Posture
British Journal of Sports Medicine
Archives of Physical Medicine and Rehabilitation
Clinical Biomechanics
International Journal of Psychophysiology
Perceptual & Motor Skills