

CURRICULUM VITAE
STEVE B. HAMMER, PH.D.

CONTACT INFORMATION

Steven Berlin Hammer
Indian River State College
Department of Biological Sciences
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EDUCATION

2006-2009 Kent State University Kent, OH

Ph.D. Biomedical Sciences: Neuroscience

- Dissertation: "Interactions Between Exercise, Aging and Ethanol and the Mammalian Circadian Timing System"

2002-2006 Kent State University Kent, OH

Exercise Science Doctoral Program

- Focus: Cardiovascular response to ultra-endurance exercise

2001-2002 Wichita State University Wichita, KS

M.Ed. Exercise Science

- Thesis: "Eye Movement Desensitization and Reprocessing and its Effects on Competition Induced Panic."

1993-1996 Kansas Newman College Wichita, KS

B.A. Biology

1992-1993 Southwestern College Winfield, KS

Emergency Medical Intensive Care Technician
(EMT-P/Paramedic/EMICT)

EXPERIENCE

Assistant Instructor

2012-Present Indian River State College

- Lab Instructor for Anatomy and Physiology
- Develop and teach Cell Biology lecture and lab
- Lecture instructor for Survey of the human body
- Lecture instructor for Anatomy and Physiology
- Develop new cell biology lab for STEM building

Master Instructor

2010-2012 Indian River State College

- Lab Instructor for Anatomy and Physiology and General Biology
- Develop and teach Cell Biology lecture and lab
- Lecture instructor for Survey of the human body
- Lecture instructor for Anatomy and Physiology

Adjunct Professor

January 2010- August 2010 Indian River State College Ft. Pierce, FL

- Anatomy and Physiology Lab Instructor
- General Biology Lab Instructor
- Anatomy and Physiology Lecture Instructor

Clinical Director of Exercise and Brain Fitness

2009-2011 Awakening Memory Clinic Vero Beach, FL

- Cognitive behavior therapy on patients with mild to moderate cognitive impairment
- Exercise prescription and training to improve cognitive function

Graduate Assistant

2006-2009 Kent State University Kent, OH

- Cell Biology Lab instructor (BSCI-20140 Cell Biology)

Graduate Assistant

2002-2004 Kent State University Kent, OH

Teaching assistant

- Exercise Physiology (PEP 45080)
- Measurement and Evaluation (PEP 25068)

Research assistant

- Various human and animal experiments

Instructor

2002 Summer Wichita State University Wichita, KS

- Principles of EKG analysis (KSS 750)
- Kinesiology (KSS 328)
- Physiology of Human Performance (KSS 795)

Graduate Assistant

2001-2002 Wichita State University Wichita, KS

Teaching assistant

- Exercise Physiology (HPS 490)

Research assistant

- Performed fitness testing and body composition analysis

Instructor

2001-2002 Butler County Community College Andover, KS

- Lifetime Fitness (PE 254)

Director/Paramedic

1998-2000 Ambergris Caye Emergency Service Belize, Central America

- Founder and Director of Emergency Medical Services (A.C.E.S.)
- Medical Director during Hurricane "Mitch" 1998, Ambergris Caye
- Responded to advanced and basic life support emergencies

Paramedic

1996-1998 Sedgwick County Emergency Medical Service Wichita, KS

- Responded to advanced and basic life support emergencies

Instructor

1996 Cowley County Community College Mulvane, KS

- Anatomy and Physiology (BIO 4150)

Paramedic

1996 Mulvane Emergency Medical Services Mulvane, KS

- Responded to advanced and basic life support emergencies

Substitute Instructor

1992-1993 Kansas Newman College Wichita, KS

- Gross Anatomy (BIOL 3032)

Tutor

1992-1993 Kansas Newman College Wichita, KS

- Biology, Chemistry and Physics

Paramedic

Summer 1994 Indian Health Services Crownpoint, NM

Paramedic with Navajo Emergency Medical Services

- Responded to advanced and basic life support emergencies on the Navajo Reservation
- Critical and non-critical patients transport to Albuquerque and Gallup, New Mexico
- Emergency room care of critical and non-critical patients

EMT/Paramedic

1991-1994 Derby/Sedgwick County EMS Derby, KS

Paramedic

- Responded to advanced and basic life support emergencies

Basic level EMT

- Basic life support emergencies

SPECIAL CLASSES, ACTIVITIES, AND HONORS

2007-2009 Boy Scout Troop 662 Shaker Heights, OH
Committee Member

2002 Honor Society of Phi Kappa Phi

2001-2002 Wichita State University Wichita, KS
Vice President Exercise Physiology Club

1995- Current Teaching private medical classes

- Basic and advanced EKG interpretation
- Acid/Base physiology

1993-1998 Boy Scout Troop 443 Wichita, KS
Assistant Scout Master

1995-2003 EMS Explorer Post, Wichita, KS
Assistant Director

1989 Wichita State University Wichita, KS
Anthropology Club President

1989 Smithsonian Institute Washington, DC
Research Assistant: bone prosthesis research

1985-1988 DeMoley Masonic Organization, Wichita, KS

CERTIFICATIONS

1993- Current Advanced Cardiac Life Support
1994-1999 Advanced Cardiac Life Support Instructor
1993-1999 Pediatric Advanced Life Support
1989- Current Cardiopulmonary Resuscitation

RESEARCH SKILLS

Animal research experience

- Small animal research (5 years experience): Primary animals: Syrian hamster, Sprague Dawley rat and some work with various mouse models
- Anesthesia administration by injection and inhalation, ventilator operation, intubation and surgical airway procedures
- Arterial and venous cannulation, isolated hind limb experiments, invasive vital sign measurement, blood gas analysis
- Microdialysis procedures in skeletal muscle and intracranially

Biomedical Lab Skills

- HPLC, ELISA, PCR, Western Blot
- Cell culture

Exercise Physiology Experience

- Treadmill fitness testing, maximal and submaximal including stress testing
- EKG analysis at rest and exercise
- Cycle ergometer testing, field and laboratory based
- VO₂ gas analysis, spirometry function and analysis, ventilatory threshold determination and lactic acid analysis
- Gait analysis, cycling analysis, swimming analysis
- DEXA operation/analysis and manual techniques of body composition Determination

Clinical Skills

- Patient evaluation from interview through primary and secondary assessments
- Assessment of biomechanics and range of motion
- Application and teaching of all basic and advanced life support techniques
- Interpretation of basic hematological laboratory values
- Basic and advanced trauma life support
- X-ray, CT and MRI reading
- 1 year of training in Chinese medicine: theory, acupuncture and herbal medicine (Kansas College of Chinese Medicine)

PUBLICATIONS

Brager AJ, **Hammer, SB**. Impact of wheel running on chronic ethanol intake in aged Syrian hamsters. *Physiology & Behavior* 09/2012; 107(3):418-423. · 2.87 Impact Factor

Hammer SB, Ruby CL, Brager AJ, Prosser RA, Glass JD. Environmental modulation of alcohol intake in hamsters: effects of wheel running and constant light exposure. *Alcoholism Clinical and Experimental Research* 09/2010; 34(9):1651-8. · 3.34 Impact Factor

Brager, A.J., Ruby, C.L., **Hammer, S.B.**, Prosser, R.A., Glass, J.D. Chronic ethanol disrupts circadian sleep and activity rhythms in the Syrian hamster. *Sleep* 01/2008; · 5.05 Impact Factor

Rogers M.E., Bohlken R.M., Beets M.W., **Hammer S.B.**, Ziegenfuss T.N., Šarabon N. Effects of creatine, ginseng, and astragalus supplementation on strength, body composition, mood, and blood lipids during strength-training in older adults. *Medicine & Science in Sports & Exercise* 04/2003; 35(5):S217. · 4.43 Impact Factor

Beets, M.W., **S.B. Hammer**, M.E. Rogers, and D. Koizumi. Comparison of BMI in children attending a technology camp to national data. *Kansas Association of Health, Physical Education, Recreation, and Dance Journal*, 73, 2, 24-27, 2002.

POSTER PRESENTATIONS

1. **S.B. Hammer**, A.J. Brager, M. DePaul, R.A. Prosser., J.D. Glass, Exercise and Aging Affect Free-Choice Ethanol Consumption in the Syrian Hamster. 32nd Annual Scientific Meeting of the Research Society on Alcoholism, San Diego, Ca, 2009

2. **S.B. Hammer**, A.J. Brager, M. DePaul, R.A. Prosser., J.D. Glass, Exercise and Aging Affect Free-Choice Ethanol Consumption in the Syrian Hamster. Celebration of Scholarship, Kent State University, Kent OH, February 11th, 2009

3. **Hammer, S.B.**, Glass, J.D. Activity Onsets as Circadian Phase Markers: What Time is it Really? Society for Research on Biological Rhythms, Annual meeting, Destin FL, May 2008

4. **Hammer, S.B.**, Glass, J.D. Activity Onsets as Circadian Phase Markers: What Time is it Really? Kent State University: School of Biomedical Sciences: Research Conference and Poster Session, Kent, OH, April 10, 2008

5. Brager, A.J., Ruby, C.L., **Hammer, S.B.**, Prosser, R.A., Glass, J.D. Chronic ethanol disrupts circadian sleep and activity rhythms in the Syrian hamster. Poster presented at the 22nd Annual Meeting of the Associated Professional Sleep Societies, Baltimore, MD, June 10, 2008.

6. Brager, A.J., Ruby, C.L., **Hammer, S.B.**, Prosser, R.A., Glass, J.D. Chronic ethanol consumption interrupts sleep and activity rhythms in the Syrian hamster. Poster presented at Kent State University Department of Biological Sciences 2008 Research Symposium, March 31, 2008.
7. **Hammer, S.B.**, Glass, J.D. Aging and Exercise: Effects on Circadian Rhythms in the Syrian Hamster. Kent State University Department of Biological Sciences 2008 Research Symposium, March 31, 2008.
8. **Hammer, S.B.**, Beets, M.W., Pitetti, K.H. Contribution of Biological Maturation and Sport Participation to 1-mile Walk Run Performance in High School Males. American College of Sports Medicine Annual Meeting, Nashville, TN, June 1, 2005
9. Beets, M.W, **Hammer, S.B.**, Pitetti, K.H. Relationship of Maturation and Sport Participation to 20-m Shuttle Run Performance in High School Girls. American College of Sports Medicine Annual Meeting, Nashville, TN, June 1, 2005
10. Pitetti, K.H., Beets, M.W, **Hammer, S.B.** Criterion-Referenced Equivalence Between the 1-mile Run/Walk and Pacer in High School Students. College of Sports Medicine Annual Meeting, Nashville, TN, June 1, 2005
11. Fascione, J., Michel, D.A., Riechman, S.E., **Hammer, S.B.**, Andrews, R.D. The Association of Foot Arch Height and Running Performance. College of Sports Medicine Annual Meeting, Nashville, TN, June 1, 2005
12. Bohlken, R.M., **M.E. Rogers**, S.B. Hammer, M.W. Beets, and L.R. Sporleder. Effects of creatine and ginseng/astragalus botanical extracts on strength in resistance-training older adults. *Medicine and Science in Sports and Exercise*, 35: S217, 2003.
13. **Hammer, S.B.**, B.S. Hammer, A. Biggs, M.E. Rogers, R.M. Bohlken, and K.H. Pitetti. Relationship between spinal curvature and respiratory function in developmentally disabled children American College of Sports Medicine Annual Meeting, St. Louis, MO, May 29-June 1, 2002.
14. **Hammer, S.B.**, B.S. Hammer, A. Biggs, M.E. Rogers, R.M. Bohlken, and KH. Pitetti. Spinal curvature may affect respiratory function and physical performance in children. *Kansas Association for Health, Physical Education, Recreation, and Dance Annual Convention*, Topeka, KS, October 26-27, 2001.
15. **Hammer, S.B.**, F. Tsen, B.S. Hammer, M.E. Rogers, and R.M. Bohlken. A cycle ergometer ramp protocol to predict VO_{2max} . Central States Chapter / *American College of Sports Medicine Annual Meeting*, Kansas City, MO, October 20-21, 2001.

INVITED PRESENTATION

1. The Lakes at Pointe West, Vero Beach Florida, “Cognitive Memory Therapy and Exercise to Combat Age Related Memory Loss” (1/2010)
2. Kent State University, Exercise Science Seminar “Circadian Rhythms in Exercise and Aging” (11/6/2006)

PROFESSIONAL REFERENCES

Dr. Michael Kalinski, Ph.D., Kent State University, Department of Exercise, Leisure and Sport, Kent, Ohio; mkalinsk@kent.edu, 330-672-2857

Dr. Greg Grossman, Ph.D., Cleveland Clinic, Cole Eye Institute, Cleveland, Ohio; grossmg@ccf.org, 216-444-5663

Dr. Michael Beets, M.P.H., Ph.D. Assistant Professor, Dept. of Exercise Science Arnold School of Public Health, University of South Carolina, Columbia, SC; beets@gwm.sc.edu, 803-777-3003

Dr. Mike Rogers, Ph.D., Wichita State University, Human Performance Studies, Wichita, Kansas; michael.rogers@wichita.edu, 316-978-5959