

CURRICULUM VITAE

STEVEN B. HAMMER, Ph.D.

Steven Berlin Hammer
Indian River State College
Department of Biological Sciences
Fort Pierce, Florida 34981-5596
Phone (772) 462-7181
[**shammer@irsc.edu**](mailto:shammer@irsc.edu)

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

- **(EMT-P/Paramedic/EMICT)**

EXPERIENCE

Acting Department Chair

Summer I 2014/2015, Indian River State College

- Daily departmental duties
- Assigning instructors to courses

Assistant Instructor (Tenured)

2012-Present, Indian River State College

- Wrote and Published Lab books for Anatomy and Physiology labs
 - A&P I Laboratory Manual BSC 2093L: ISBN 978-0-7380-7429-0
 - A&P II Laboratory Manual BSC 2094L: ISBN 978-0-7380-8060-4
- Lead Instructor for Anatomy and Physiology courses
- Lead Instructor for Cell Biology and Physiology
- Developed curriculum for Cell Biology lecture and lab
- Developed new cell biology lab –designed the lab, compiled a list of necessary equipment for the lab, assisted in purchasing the equipment
- Lab Instructor for Anatomy and Physiology
- Lecture Instructor for Cell Biology lecture and lab
- Lecture Instructor for Survey of the Human Body
- Lecture Instructor for Anatomy and Physiology courses
- Lecture Instructor for Junior and Senior Seminar courses
- Lecture and Lab instructor for physical therapy assistant program

Master Instructor

2010-2012, Indian River State College

- Lab Instructor for Anatomy and Physiology and General Biology
- Lecture Instructor for Survey of the Human Body

Adjunct Professor

January 2010- August 2010, Indian River State College

- 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 Ambergris Caye 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

Paramedic

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

Substitute Instructor

1992-1993, Kansas Newman College, Wichita, KS

- Gross Anatomy (BIOL 3032)

SPECIAL CLASSES, ACTIVITIES, AND HONORS

2013-2015

A Florida Outdoor Center (AFLOC): Board Member

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: President Exercise Physiology Club

1995- Current

Teaching private medical classes

- Basic and advanced EKG interpretation
- Acid/Base physiology

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, 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
- Fluorescent Microscopy

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
- 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)

BOOK PUBLICATIONS

1. A&P I Laboratory Manual BSC 2093L ISBN 978-0-7380-7429-0
2. A&P II Laboratory Manual BSC 2094L ISBN 978-0-7380-8060-4

RESEARCH PUBLICATIONS

1. 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
2. **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
3. 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
4. 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
5. 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/RESEARCH PRESENTATIONS

1. The Effects of Ultra Marathon on Myocardial Hypertrophy; Naimah Alamin, **Steven Hammer Ph.D.**, and Jim Agnew M.D. Ph.D., Indian River State College, Ft. Pierce, FL. Undergraduate Research Symposium, Friday, December 5, 2014
2. How Much Is Too Much?: The Effect of Ethanol on C2C12 Cells; Daniel Cepeda and **Steven Hammer Ph.D.** Indian River State College, Ft. Pierce, FL. Undergraduate Research Symposium, Friday, December 5, 2014

3. Effects of Gender Upon the Cardiovascular Function in Ultra-Marathon Runners; Yolby Joseph, **Steven Hammer Ph.D.**, and Jim Agnew M.D. Ph.D., Indian River State College, Fort Pierce, FL. Undergraduate Research Symposium, Friday, December 5, 2014
4. **S.B. Hammer**; Cardiovascular Responses during a 32 Hour Ultra-Marathon; Presentation, Florida Academy of Sciences Spring 2014, Indian River State College
5. Anthropomorphic changes in lower extremities of ultra-runners, R. Staton and **S. Hammer, Ph.D.**
Indian River State College, Fort Pierce, FL, Undergraduate Research Symposium, Spring 2014
6. **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
7. **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
8. **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
9. **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
10. 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.
11. 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.
12. **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.

13. **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
14. 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
15. 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
16. 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
17. 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

INVITED PRESENTATION

1. One Book One College, expert board. Presented on Head transplants in real life as compared to the story of Frankenstein. Fall 2015, Indian River State College.
2. The Lakes at Pointe West, Vero Beach Florida, "Cognitive Memory Therapy and Exercise to Combat Age Related Memory Loss" (1/2010)
3. Kent State University, Exercise Science Seminar "Circadian Rhythms in Exercise and Aging" (11/6/2006)

PROFESSIONAL REFERENCES

Dr. Jennifer Capers, Ph.D. Indian River State College, Department Chair Biology
jcapers@irsc.edu 772-462-7556

Dr. James Agnew, M.D. Ph.D. Indian River State College, Department of Biology
jimagnew36@yahoo.com 772-567-4788

Dr. Sheldon Kushner, M.D. Indian River State College, Department of Biology
Skushner@irsc.edu 772-559-7172

Dr. William Tyler, Ph.D. Indian River State College, Department of Biology,
wtyler@irsc.edu 772-336-6260

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