Patrick R. Davis Ph.D.

Assistant Professor
Sam Houston State University
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Education

Ph.D. Bioenergetics and Exercise Science; 2015
Department of Kinesiology; East Carolina University, Greenville, NC

B.S. Exercise Science; 2008
Department of Exercise Science; Brigham Young University, Provo, UT

University Teaching Experience

Instructor
East Carolina University, Department of Kinesiology
EXSS 3805; Physiology of Exercise. Fall 2012
- Responsible for class of 34 students from syllabus to final.
- Received excellent reviews from both faculty and students.

Instructor
Brigham Young University, Department of Exercise Science
EXSC 464; Exercise Physiology Lab. 2010-2011
- Guided students through various measurements and techniques pertinent to exercise physiology.
- Instructed 4 sections of roughly 25 students each over 3 semesters.

Activity Class Instructor
Brigham Young University, Department of Exercise Science
EXSC 191 Weight Training
EXSC 186/187 Volleyball
EXSC 131 Golf
EXSC 106 Badminton
EXSC 116 Bowling

Research Experience

2015-2016 East Carolina University
Post-Doctoral Fellow
Mentor – Carol Witczak
My current research aims to examine exercise mediated glucose transportation into skeletal muscle and its relationship to insulin resistance and diabetes.

2011-2015 East Carolina University
Dissertation: AMP Deaminase 3 in Skeletal Muscle Atrophy: Regulation of Protein Degradation and Contractile Performance
Mentor - Jeffrey Brault

2009-2010 Brigham Young University Biomechanics Lab
Graduate Research Assistant
Examined muscle activation patterns and resultant fatigue during a 40-km TT when ridden on a triathlon/TT bicycle vs. a road bicycle.

Grant Funding

American College of Sports Medicine
Foundation Doctoral Student Research Grant
Regulation of mitochondria and fatigue during muscle atrophy
Role: Principle Investigator
$5000 direct costs Jul 2012-June 2013

Professional Experience

2014-2015 Bioenergetics Research Interest Group – Founder/President
- Founded a group for graduate students to present and question research with peers.
- Secured ongoing departmental funding to help start and support the group.

2014-2016 Independent Cycling Coach
- Consult with cyclists about training goals and personal performance.
- Developed training plans and workouts based on the latest power based training technologies.

2013-2015 International Journal of Sports Medicine – Associate Editor
- Identify, invite, and assign reviewers for submitted manuscripts.
- Make final publication decisions based on reviewer's recommendations.

2009 Gold's Gym – Personal Trainer
- Delivered personalized fitness instruction to meet clients goals.
- Provided weight lifting and other fitness apparatus instruction.

Publications

Davis, P.R.; Witczak, C.A.; Brault, J.J. *AMP deaminase 3 upregulation during skeletal muscle atrophy improves muscle relaxation in mouse soleus*. In final preparation for the Journal of Applied Physiology

Davis, P.R.; Roseno, S.L.; Witczak, C.A.; Brault, J.J. *AMP Deaminase 3 overexpression accelerates protein degradation in C2C12 myotubes*. In preparation

Roseno, S.L.; **Davis, P.R**.; Bollinger, L; Powell, J.P.; Witczak, C.A.; Brault, J.J. *Short-term, high-fat diet accelerates disuse atrophy and protein degradation in a muscle-specific manner in mice*. Accepted Oct 2015: Nutrition & Metabolism

Meeting Abstracts

Davis, P.R.; Klip, A.; Niu W.; Witczak, C.A. *CaMKKα signaling increases GLUT4 translocation to the plasma membrane in skeletal muscle.* Research and Creative Achievement Week, Greenville, NC; East Carolina University April 2016

Davis, P.R.; Witczak, C.A.; Brault, J.J. *AMP Deaminase 3 Overexpression Accelerates Protein Degradation in C2C12 Myotubes.* Experimental Biology, Boston, MA; *April 2015 FASEB vol 29 no 1 Supplement 825.2*

Davis, P.R.; Witczak, C.A.; Brault, J.J. *Accelerated Nucleotide Degradation induces atrophy in muscle.* Research and Creative Achievement Week, Greenville, NC; East Carolina University March 2015

Davis, P.R.; Witczak, C.A.; Brault, J.J. *Skeletal muscle function during high intensity contractions is improved by increased AMP Deaminase expression*. Research and Creative Achievement Week, Greenville, NC; East Carolina University March 2014

Davis, P.R.; Witczak, C.A.; Brault, J.J. *AMP Deaminase overexpression improves skeletal muscle relaxation kinetics during high energy demands*. Advances in Skeletal Muscle Biology and Disease, Gainesville, FL; March 2014

Seminar Presentations/Guest Lectures

AMP signaling during skeletal muscle atrophy. *Bioenergetics Research Interest Group*. East Carolina University, Greenville, NC 2014

Free energy maintenance by AMP deaminase. *Bioenergetics Research Interest Group*. East Carolina University, Greenville, NC 2014

Does AMP degradation influence skeletal muscle contractile performance and mitochondrial content? *Joint Metabolism Meeting*. East Carolina Diabetes and Obesity Institute. East Carolina University, Greenville, NC 2014

Cellular energetics and skeletal muscle atrophy. *Joint Metabolism Meeting*. East Carolina Diabetes and Obesity Institute. East Carolina University, Greenville, NC 2013

Guest Lecturer *Diabetes and Exercise*. EXSS 3805 East Carolina University, Greenville, NC 2013

Reviewer For Professional Journals

International Journal of Sports Medicine

Honors

2011-2015	Graduate Student Scholarship, East Carolina University
2014 & 2015	East Carolina University Graduate School Travel Award
2009-2011	Graduate Student Teaching Assistantship, Brigham Young University
2009-2010	Graduate Student Research Assistantship, Brigham Young University