

## CURRICULUM VITAE

Esther E.F. Dupont-Versteegden

(August 5, 2016)

### **Personal data:**

Name: Esther Elisabeth Franciscus Dupont-Versteegden  
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### **Education:**

Undergraduate Education: State University of Limburg  
Maastricht, The Netherlands (1984-1988)  
Doctorandus, Movement Sciences (1988)  
(Master's equivalent)  
*Co-advisors:* Eline Lindeman, M.D., Ph.D.  
Jos Adam, Ph.D.  
*Thesis:* Relationships between Impairment and Disability in Patients with  
Neuromuscular Disease

Graduate Education: University of Texas Health Science Center  
San Antonio, Texas (1989-1995)  
Ph.D., Physiology (1995)  
*Advisor:* Roger J.M. McCarter, Ph.D.  
*Dissertation:* Exercise and clenbuterol as modulators of muscular  
dystrophy in *mdx* mice.

Postdoctoral Training: Postdoctoral Fellow, Dept. Geriatrics  
University of Arkansas for Medical Sciences, Little Rock, AR (1995-1998)  
*Advisor:* Charlotte Peterson, Ph.D.  
*Title:* Molecular Mechanisms of Muscle Responses to Exercise

### **Professional Experience**

2016-present	Director Rehabilitation Sciences Doctoral Program, College of Health Sciences, University of Kentucky
2016-present	Director of Graduate Studies, Rehabilitation Sciences Doctoral Program, College of Health Sciences, University of Kentucky
2015-present	Professor, Division of Physical Therapy, Dept. Rehabilitation Sciences, College of Health Sciences, University of Kentucky, KY
2015-present	Professor, Dept. Physiology (secondary appointment) College of Medicine, University of Kentucky, KY
2008-present	Faculty Associate UK Spinal Cord & Brain Injury Research Center

2006-2015	Associate Professor, Division of Physical Therapy, Dept. Rehabilitation Sciences, College of Health Sciences, University of Kentucky, KY
2007-2015	Associate Professor, Dept. Physiology (secondary appointment) College of Medicine, University of Kentucky, KY
2006-2006	Associate Professor, Dept. Geriatrics University of Arkansas for Medical Sciences, Little Rock, AR
2006-2006	Associate Professor, Dept. Physiology and Biophysics (Secondary Appointment) University of Arkansas for Medical Sciences, Little Rock, AR
2002-2006	Assistant Professor, Dept. Geriatrics University of Arkansas for Medical Sciences, Little Rock, AR
2002-2006	Assistant Professor, Dept. Physiology and Biophysics (Secondary Appointment) University of Arkansas for Medical Sciences, Little Rock, AR
1999- 2002	Research Assistant Professor, Dept. Geriatrics University of Arkansas for Medical Sciences, Little Rock, AR
1998-1999	Instructor, Dept. Geriatrics University of Arkansas for Medical Sciences, Little Rock, AR
1995-1998	Postdoctoral Fellow, Dept. Geriatrics University of Arkansas for Medical Sciences, Little Rock, AR
1989-1995	Supervisor: Charlotte Peterson, Ph.D. Teaching Assistant, Dept. Physiology University of Texas Health Science Center at San Antonio, TX
1988-1989	Research Associate, Department of Physical Medicine and Rehabilitation Academic Hospital Maastricht Maastricht, The Netherlands

#### **Professional Affiliations:**

1991- 1995	American Physiological Society, student member
1995-present	American Physiological Society, member
1995-present	American Association for the Advancement of Science
1996-present	American Association of University Women
2001-present	Researchers against Inactivity-Related Diseases
2003-present	Gerontological Society of America
2006-present	Society for Muscle Biology
2006-present	American Physical Therapy Association, Faculty Partners member
2013-present	Kentucky Chapter of American Physiological Society

#### **National Society Committee Assignments:**

2003-2006	Biological Sciences Section Membership Committee, Gerontological Society of America
2006-2009	Humanities and Arts Committee, Gerontological Society of America
2007-current	Executive Committee Biological Sciences Section, member
2009-2010	Perkins Memorial Award for International Physiologists Committee, American Physiological Society, member
2010-2015	Perkins Memorial Award for International Physiologists Committee, American Physiological Society, Chair
2010-2012	Ex officio member, International Physiology Committee, American Physiological Society
2010-2014	Information Technology Committee, Gerontological Society of America
2013-2016	Biological Sciences Fellowship Committee, Gerontological Society of America

#### **Honors and Awards:**

Caroline Tum Suden Professional Opportunity Award

American Physiological Society (1991)

Ambassador Scholarship Award

The Graduate School of Biomedical Sciences, University Texas Health Science Center San Antonio (1994)

Women's Faculty Association Leadership Award

Women's Faculty Association University Texas Health Science Center San Antonio (1995)

Award for Excellence in Studies in the Department of Physiology

Department of Physiology, University Texas Health Science Center San Antonio (1995)

National Research Service Award

National Institutes of Health (1996-1999)

First Prize Winner Poster Contest (1997)

Research Day at University Arkansas Medical Sciences

Research Grant Award (2000-2001)

American Federation for Aging Research

2004 EBM Best Paper Award (published in Experimental Biology and Medicine)

Society for Experimental Biology and Medicine

Note: Paper received an Editorial Comment in Experimental Biology and Medicine, May 2005

Wethington Award, College of Health Sciences, University Kentucky, 2007-2011, 2013, 2014

Editor's 'Pick of the Month' for paper published in Physiological Genomics, October 2009

College of Health Sciences Distinguished Excellence in Research Award, 2010

Experimental Gerontology, Top Cited Article, 2008-2010

Selected Participant, Circles of Power, Educational Program for Women in Leadership, University of Kentucky, 2009-2010

The Dr. Edward Masoro Outstanding Alumnus Award. Barshop Institute for Longevity and Aging Studies, San Antonio, Texas, April 27, 2011.

Fellowship awarded in the Gerontological Society of America, Biological Section, 2012

Picture from article featured on cover of Journal of Muscle Research and Cell Motility, June 2015

University Research Professor award from the University of Kentucky, 2016

College of Health Sciences Distinguished Excellence in Research Award, 2016

Fellowship awarded in the American Physiological Society, 2016

#### **Awards and Honors for Supervised Students**

- Xiaojin Wang, Medical Student, General Clinical Research Center Awardee, 2008
- Gaines Fellowship Award in the Arts and Humanities, University of Kentucky, Awarded to Ben Barnes, 2009
- American Physiological Society Summer Fellowship, Awarded to Ben Barnes, 2009
- American Physiological Society Summer Fellowship, Awarded to Aman Shah, 2012

- College of Health Sciences Robinson Award for Research Creativity, Awarded to Christine Waters-Banker, 2013
- American Physiological Society, David S. Bruce Outstanding Undergraduate Award, awarded to Aman Shah, 2013
- American Physiological Society Summer Research Fellowship, awarded to Jenae Brown, 2014
- Professional Student Mentored Research Fellowship, CCTS, awarded to Eleni Maroudas, 2014-2015
- American Physiological Society, David S. Bruce Outstanding Undergraduate Abstract Award, awarded to Jenae Brown, January, 2015
- American Physiological Society, STRIDE Undergraduate Summer Research Fellowship, awarded to Amanda Hyak, 2015
- American Physiological Society, David S. Bruce Excellence in Undergraduate Research Award, awarded to Jenae Brown, Experimental Biology, April 2015
- University of Pikeville-Kentucky College of Osteopathic Medicine Summer Research Fellowship, awarded to Aman Shah, first year medical student, 2015
- Professional Student Mentored Research Fellowship, CCTS, awarded to Christine Auberle, 2015-2016
- American Physiological Society, David S. Bruce Outstanding Undergraduate Abstract Award, awarded to Amanda Hayek, January, 2016
- American Physiological Society Summer Research Fellowship, awarded to Lina Ghazala, 2016
- University of Pikeville-Kentucky College of Osteopathic Medicine Summer Research Fellowship, awarded to Casey Potts, first year medical student, 2016

**Professional Activities:**

**Editorial Board:**

- APOPTOSIS: Journal for the International Cell Death Society and the European Cell Death Organization (2005-present)
- American Journal of Physiology: Regulatory, Integrative and Comparative Physiology (2008-present)
- Frontiers in Skeletal Muscle Physiology (2011-present), review editor
- Proceedings of the National Conferences on Undergraduate Research (2012)
- Journal of Applied Physiology (2012-2015)
- Frontiers in Geriatric Medicine (2014-present)
- Scientific Reports, Nature Publishing Company, Cell Biology section (2015-2018)
- Frontiers in Exercise Physiology (2015-present), review editor

**Journal Review:-**African Journal of Biotechnology

- Aging. Clinical and Experimental Research.
- Aging Cell
- American Journal of Physiology Cell Physiology
- American Journal of Physiology Endocrinology and Metabolism
- American Journal of Physiology Regulatory, Integrative and Comparative Physiology
- American Journal of Primatology
- Apoptosis
- Applied Physiology, Nutrition, and Metabolism
- Brain Research
- Biochemistry and Cell Biology
- Canadian Journal of Physiology and Pharmacology
- Comprehensive Physiology (Reviews)
- European Journal of Applied Physiology
- European Journal of Physiology/Pflügers Archiv
- Exercise and Sport Sciences Reviews
- Experimental Gerontology
- Experimental Neurology

- Experimental Physiology
- FASEB Journal
- Free Radical Biology & Medicine
- Frontiers in Physiology-Striated Muscle Physiology
- Iranian Journal of Veterinary Research
- Journal of Aging Research
- Journal of Applied Physiology
- Journals of Gerontology: Biological Sciences
- Journal of Physiology
- Journal of the American Aging Association
- Journal of Visualized Experiments (JoVE)
- Mechanisms of Aging and Development
- Muscle & Nerve
- Neuromuscular Disorders
- Neuroscience Letters
- Physical Therapy Journal
- Physiological Research
- PLoS ONE
- PPAR Research
- Proceedings of the Indian National Science Academy
- Proceedings of the National Conferences on Undergraduate Research
- Spinal Cord
- Trends in Pharmacological Sciences

**Book review:** - e-books: Physical Activity and Health in the Elderly. Bentham Science Publishers (2009)

**Abstract review:** - National Conference on Undergraduate Research, 2011-2013  
- Gerontological Society of America, 2013  
- National Conference on Undergraduate Research , Abstract Coordinator, 2013

**Grant review:** - Aging Research and Education Center, San Antonio, Texas (2002)  
- Barshop Center for Longevity and Aging Studies, San Antonio, Texas (2003, 2004)  
- The Wellcome Trust, UK (2003, 2007)  
- Canadian Space Agency, Canada (2003)  
- USDA National Research Initiative Competitive Grants Program, Ad Hoc reviewer (2004)  
- National Scientific Advisory Council for the American Federation for Aging Research, (2006)  
- Strategic Promotion of Ageing Research Capacity, UK (2006)  
- National Science Foundation, Ad hoc reviewer (2006, 2007)  
- Dutch Duchenne Parent Project (DPP/NL) (2007)  
- Clinical Research Feasibility Funds, University Kentucky (2007)  
- Canada Foundation for Innovation (2008)  
- U.S. Civilian Research and Development Foundation (2008)  
- Association Française contre les Myopathies (French counterpart of the Muscular Dystrophy Association) (2008, 2009)  
- Claude Pepper Center , University of Florida (2009)  
- Netherlands Organization Scientific Research: Netherlands Genomics Initiative (2010)  
- Dunhill Medical Trust, United Kingdom (2010)  
- Nathan Shock Pilot Grant Program, University of Michigan (2011)  
- Nathan Shock Pilot Program San Antonio (2007, 2013)  
- West Virginia Clinical & Translational Science Institute Pilot Grants Program (2013)  
- Lung Foundation Netherlands (2013)  
- Neurological Foundation of New Zealand, (2013)  
- HBCU - Historically Black College and University Research Scientist Training Program Award, VA Health Care System, August 2014

- KL2 award, CCTS, University of Kentucky, January 2015
- CCTS Standing Review Committee, January 2015 – current.

**Study sections NIH:** - Skeletal Muscle and Exercise Physiology (SMEP), standing member, 2015-2019

- Ad Hoc NIH:**
- NIA, Program project review, November 2010
  - SBIR review, MOSS Q(14)-Small Business: Skeletal Muscle and Exercise Physiology, July 2011 (Chair)
  - SBIR review, MOSS Q(14)-Small Business: Skeletal Muscle and Exercise Physiology, November 2011, November 2013, March 2014, November 2014
  - Cellular Mechanisms of Aging and Development (CMAD) study section. February 2014.
  - Cognition, Diabetic Neuropathy and Metabolomics, Special Emphasis Panel. December 19, 2014. Co-chair.
  - Skeletal Muscle and Exercise Physiology study section. February 5-6, 2015

- Study Sections (other):**
- American Federation for Aging Research (AFAR) Research Committee (2007 - 2013)
  - American Heart Association (AHA) Basic Cell and Molecular Biology Section (2008)
  - Veterans Health Administration, Rehabilitation Research and Development, Neurodegenerative Diseases and Aging (February 2009, August 2009, February 2010, February 2011, August 2011)

### **Professional Development**

2009 – 2010

Participant, Circles of Power Leadership Program, University of Kentucky

### **Committee Assignments:**

#### **Department level**

1992-1993	Committee on Graduate Studies of the Department of Physiology UT Health Science Center San Antonio
1993-1994	Student member, Miniquiz Committee for Medical Student Curriculum Revision, Dept. Physiology, UTHSCSA
2002-2004	Professional and Personal Growth and Development Committee, Dept. Geriatrics, UAMS
2004-2006	Professional and Personal Growth and Development Committee, Faculty Subcommittee, Dept Geriatrics, UAMS.
2006-2007	Research Workgroup, Curriculum Committee, PhD program in Rehabilitation Sciences, College of Health Sciences, University Kentucky
2006-2007	Tracks workgroup, Curriculum Committee, PhD program in Rehabilitation Sciences, College of Health Sciences, University of Kentucky
2008-2009	2 & 4-year review committee, Department of Rehabilitation Sciences, College of Health Sciences, University of Kentucky
2009-2010	Chair, 2 & 4-year review committee, Department of Rehabilitation Sciences, University of Kentucky

#### **College level**

1990-1991	Graduate Student Association
2005-2006	Interdisciplinary Biomedical Sciences Advisory Committee, UAMS
2006	Admissions Committee Interdisciplinary Biomedical Sciences Program, UAMS
2007	Safety Committee, College of Health Sciences, University of Kentucky
2007-2009	Faculty Council, College of Health Sciences, University Kentucky
2007-2008	Research Advisory Committee, alternate member, College of Health Sciences, University Kentucky
2007-2008	Faculty Retreat 2008 Subcommittee, Faculty Council, College of Health Sciences, University Kentucky

2008-2009	Faculty Retreat 2008 Subcommittee, Faculty Council, College of Health Sciences, University Kentucky
2009-2010	Research Advisory Committee, College of Health Sciences, University of Kentucky, alternate member
2010	Search Committee Clinical Sciences, College of Health Sciences, University of Kentucky
2010	College of Health Sciences Dean Review Committee, University of Kentucky
2011	Ad Hoc Selection Committee for Robinson Awards for Graduate Research, College of Health Sciences, University of Kentucky
2011-2013	Performance Review Appeals Committee, College of Health Sciences, University of Kentucky
2012	College of Health Sciences ad hoc Budget Advisory Committee
2013	Search Committee Athletic Training, College of Health Sciences, University of Kentucky
2014	Search Committee: Director of Graduate Studies Physician Assistant Program, College of Health Sciences, University of Kentucky
2010-present	Research Advisory Committee, College of Health Sciences, University of Kentucky, member
2015-2016	Faculty Council, member
2016-2017	Faculty Council, Chair
2015-present	Performance Review Appeals Committee
2016	College Periodic Review Committee

#### University level

1991-1992	UTHSC Bookstore Committee
1992-1995	UTHSC Student Health Advisory Committee
1993-1994	Founder and First President, UTHSCSA Texas Students for Biomedical Research
1994-1995	Member, UTHSCSA Texas Students for Biomedical Research
1993-1994	Student member, Institutional Animal Care and Use Committee, UTHSCSA
1994-1995	Member, Science Education Outreach Committee, UTHSCSA
2003-2006	Member, Institutional Animal Care and Use Committee, UAMS
2003-2006	Member, Women's Faculty Development Caucus, UAMS
2010-2013	University Senate, University of Kentucky
2001-2013	Senate Academic Programs Committee, University of Kentucky
2011-2013	KL2/K12 Admissions and Advisory Committee, CTSA, University of Kentucky
2013-2015	Health Care Colleges Council, University of Kentucky
2013-2016	University Senate Hearing Panel (Privilege and Tenure), appointed by President.
2013-2014	Search Committee: Dean for College of Health Sciences
2013-current	Center for Muscle Biology Executive Committee

#### Research

<b>Areas of Interest:</b>	Skeletal muscle atrophy in response to disuse Age-associated changes in skeletal muscle (in particular: atrophy) The role of apoptosis in skeletal muscle atrophy. The role of cold shock protein, Rbm3, on muscle properties The effect of massage on muscle properties
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#### **Current Grant Support**

“Effect of satellite cell ablation on the aging diaphragm”

Role on Project: Principal Investigator

Agency: NIH, NIA

Type: R21, research grant (AG043721)

Period: October 2013 – June 2017 in NCE

Total direct cost for 2 years: \$275,000

“Cold Induced Changes in Human Subcutaneous White Adipose.”

Principal Investigator: Phillip Kern, MD

Role on project: Co-Investigator

Agency: NIH, NIDDK

Type: RO1, Research grant (DK107646)

Period: October 2015 – September 2018

Total direct cost for 3 years: \$1,536,706

### **Pending Grant Support**

“The activation of brown and beige fat and role in insulin sensitivity”

Principal Investigator: Phillip Kern, MD

Role on project: Co-Investigator

Agency: NIH, NIDDK

Type: RO1, Research grant

Total direct cost for 5 years: \$1,883,452

“Mechanisms underlying anabolic effects of cyclic compressive loading in muscle”

Role on Project: Principal Investigator

Agency: NIH, NCCIH

Type: RO1, research grant

Total direct cost for 5 years: \$1,815,703

Submitted December 2015

Not funded, to be resubmitted

“Massage as an intervention for muscle atrophy”

Principal Investigators: Timothy Butterfield and Esther Dupont-Versteegden

Agency: Massage Therapy Foundation

Type: Research grant

Total cost: \$30,000

Submitted March 2016

“The cold shock protein RBM3 as a modulator of skeletal muscle protein homeostasis”

Principal Investigator: Esther Dupont-Versteegden

Agency: NIH, NIAMS

Type: RO1, research grant

Total cost for 5 years: \$2,673,272

Submitted: April 2016

“What cell type is contributing to skeletal muscle DNA synthesis?”

Principal Investigator: Benjamin Miller, PhD; Colorado State University

Role on project: Research Mentor

Agency: American Physiological Society

Type: Research Career Enhancement Award

Total direct cost: \$15,324

Submitted March 24, 2016

### **Past Grant Support**

“Use of Exercise and Clenbuterol as Strategies to Understand and Alleviate Muscular Dystrophy”

Principal Investigator: Roger J.M. McCarter, Ph.D.



Role on Project: Co-Investigator

Agency: Industry University Cooperative Research Center, The University of Texas Health Science Center at San Antonio.

Type: Research Grant, Period: October 1993-September 1994

“Molecular Mechanisms of Muscle Responses to Exercise”

Principal Investigator: Esther E. Dupont-Versteegden, Ph.D.

Agency: NIH, NIAMS

Type: National Research Service Award (AR08432), Period: July 1996-June 1999

Total direct cost for 3 years: \$82,200

“The Role of Calcineurin in Age-Associated Muscle Atrophy”

Principal Investigator: Esther E. Dupont-Versteegden, Ph.D.

Agency: American Federation for Aging Research

Type: Research Grant (A00117), Period: July 2000-June 2001

Total direct costs: \$50,000

“Impaired Regulation of Muscle Size with Aging”

Principal Investigator: Esther E. Dupont-Versteegden, Ph.D.

Agency: NIH, NIA

Type: Research Grant RO3 (AG20407) Period: February 2002-January 2003

Total direct costs: \$50,000

“Time-Dependent Changes in Cellular Environment Determine the Functional Outcome of Cellular Cardiomyoplasty”

Principal Investigator: Esther E. Dupont-Versteegden, Ph.D.

Agency: American Heart Association

Type: Research Grant (Beginning-Grant-in-Aid: 0265193Z), Period: July 2002-June 2004

Total direct costs: \$110,000

“Investigating Mechanisms of Skeletal Muscle Wasting”

Principal Investigator: Esther E. Dupont-Versteegden, Ph.D.

Agency: College of Medicine, University of Arkansas for Medical Sciences

Type of Grant: Research Pilot Grant, Period: June 2003-May 2004

Total direct costs: \$13,000

“Altering Myoblasts to Enhance Cardiac Implantation”

Principal Investigator: Richard H. Kennedy, Ph.D.

Role on Project: Co-Investigator

Agency: NIH, NHLBI

Type: Research Grant R21 (HL72136), Period: October 2002-September 2005

Total direct costs: \$450,000

“Muscle and Bone Maintenance in Hind Limb Suspended Rats”

Principal Investigator: Charlotte A. Peterson, Ph.D.

Role on Project: Co-Investigator

Agency: NIH, NIAMS

Type: Research Grant RO1 (AR47577), Period: February 2002-January 2007

Total direct costs: \$1,210,000

“Effects of non-oral feeding on infant tongue muscle mass and force”

Principal Investigator: Gilson Capilouto, Ph.D.

Role on project: Co-Investigator

Agency: Kentucky Science & Engineering Foundation

Type: Research grant Period: June 2010-May 2011

Total direct cost 1 year: \$40,736

"The role of apoptosis in critical illness myopathy"

Principal Investigator: Ben Barnes

Role on Project: Mentor

Agency: American Physiological Society

Type: Undergraduate Summer Research Fellowship      Period: June-July 2010

Total cost: \$5,600

"The generation of a conditionally activated RBM3 transgenic mouse"

Principal Investigator: Esther E. Dupont-Versteegden, Ph.D.

Agency: Office of Research, College of Health Sciences

Type: pilot funding      Period: January-June 2011

Total cost: \$4,613

"Gene expression profiling of tibialis anterior muscle in response to compressive loading"

Principal Investigator: Tim Butterfield, Ph.D.

Role in project: Co-I

Agency: Office of Research, College of Health Sciences

Type: pilot funding      Period: January-June 2011

Total cost: \$5,625

"Macrophage function in skeletal muscle repair following eccentric exercise in rats: a pilot study"

Principal Investigator: Tim Butterfield, Ph.D.

Role in project: Co-I

Agency: Office of Research, College of Health Sciences

Type: pilot funding      Period: November 2011 - June 2012

Total cost: \$5,526.44

"The cellular effects of cold treatment on skeletal muscles"

Role on project: PI

Agency: KBRIN, University of Kentucky

Type: pilot funding      Period: April 2012

Total direct costs: \$1,900

"Functional significance of processing bodies (p-bodies) with age-associated muscle atrophy"

Principal Investigator: Aman Shah

Role on Project: Mentor

Agency: American Physiological Society

Type: Undergraduate Summer Research Fellowship      Period: June-July 2012

Total cost: \$5,600

"Examining the role of cold shock protein RBM3 in skeletal muscle"

Principal Investigator: Esther E. Dupont-Versteegden, Ph.D.

Agency: Office of Research, College of Health Sciences

Type: pilot funding      Period: November 2011 - June 2012

Total cost: \$4,260

"Integrated Study of Musculoskeletal Loss and Restoration"

Principal Investigator: Esther E. Dupont-Versteegden, Ph.D.

Agency: NIH, NIAMS/NIA

Type: Research Grant RO1 (AG028925)      Period: July 2006-June 2011

Total direct costs: \$1,025,000

"The Role of Endonuclease G in Nuclear Apoptosis of Atrophying Skeletal Muscle"

Principal Investigator: Esther Dupont-Versteegden, Ph.D.

Agency: NIH, NIAMS

Type: Research grant R21 (AR053967)                      Period: April 2010-March 2012  
Total direct costs for 2 years: \$267,750

“The Effects of Hypoxia on Aging Diaphragm Muscle Following Satellite Cell Ablation”  
Principal Investigator: Jenae Brown  
Role on Project: Mentor  
Agency: American Physiological Society  
Type: Undergraduate Summer Research Fellowship                      Period: June-July 2014  
Total cost: \$5,600

“Partners in Healing: A collaboration between the University of Kentucky Center for Muscle Biology and the YMCA”  
Principal Investigator: Eleni Maroudas  
Role on project: Mentor  
Agency: CCTS  
Type: Professional Student Fellowship                      Period: June 2014- June 2015  
Total cost: \$3,000

“miRNA profiling of muscle in response to cyclic compressive loading”  
PI: Esther Dupont-Versteegden, Ph.D.  
Agency: College of Health Sciences  
Type: pilot funding  
Total cost: \$5,000                      Period: November 2014 – June 2015

“Pilot investigation of the impact on cycled light versus near darkness in premature mice”  
PI: Gilson Capilouto  
Role on project: Co-I  
Agency: College of Health Sciences  
Type: pilot funding  
Total costs: \$4,918                      Period: November 2014 – June 2015

“Identification of cell types responsible for increased DNA synthesis with massage”  
Principal Investigator: Amanda Hayek  
Role on Project: Mentor  
Agency: American Physiological Society  
Type: Undergraduate Summer Research Fellowship                      Period: June-July 2015  
Total cost: \$5,600

“Effect of massage on anabolic and catabolic pathways in skeletal muscle of aged rats during regrowth after atrophy”  
PI: Aman Shah  
Role on Project: Mentor  
Agency: UP-KYCOM Summer research fellowship  
Type: Summer Research Fellowship Medical Students                      Period: May – July 2015  
Total cost: \$2,000

“The role of satellite cells in adult skeletal muscle growth and maintenance”  
Principal Investigators: Charlotte Peterson and John McCarthy  
Role on project: Co-Investigator  
Agency: NIH, NIAMS  
Type: Research grant R01 (AR 060701)                      Period: September 2010-August 2015  
Total direct cost: \$1,250,000

“Cyclic compressive loading as an intervention for skeletal muscle atrophy and impaired regrowth in the aged”  
Principal Investigator: Esther Dupont-Versteegden, Ph.D. and Timothy Butterfield, Ph.D.

Agency: NIH, NIA  
Type: R21, Research grant (AG042699)  
Total direct cost for 2 years: \$275,000

Period: June 2013 – May 2015

**Presentations:**

1. Post-natal Myogenesis: Satellite Cells in action! Boston, MA, August, 1998. Title: Analysis of the function and fate of satellite cells in spinal cord transected and exercised rats.
2. Nutrition and Aging XIV: Nutritional Syndromes in the Elderly. Little Rock, AR, September, 1999. Title: Mechanisms of muscle atrophy and hypertrophy.
3. Integrative Biology of Exercise. Portland, ME, September, 2000. Title: Molecular responses controlling muscle mass.
4. Dept. Pharmaceutical Sciences, University of Arkansas for Medical Sciences, Little Rock, AR. March, 2001. Title: Cellular and molecular mechanisms involved in muscle plasticity.
5. Dept. Anatomy and Neurobiology, University of Arkansas for Medical Sciences, Little Rock, AR December 2002. Title: Investigating mechanisms involved in the control of skeletal muscle size.
6. NIA: Apoptosis and Aging Tissues Meeting, Bethesda, MD, March 24-25, 2003 Title: Age-related differences in apoptotic nuclear death during atrophy of skeletal muscle.
7. 3<sup>rd</sup> Annual Dr. S. Mouchly Small Muscle Symposium. Buffalo, NY, June 19-20, 2003. Title: Exploring the role of satellite cells in adult muscle size regulation.
8. FASEB Summer Research Conference: Skeletal Muscle Satellite Cells. Tucson, Arizona, July 26-31, 2003. Title: The regulation of muscle size is altered with aging: the role of satellite cells and apoptosis.
9. Dept. Geriatrics Grand Rounds: Impaired regulation of muscle size with aging: do stem cells and apoptosis play a role? September, 2003.
10. Dean's Research Forum, University of Arkansas for Medical Sciences. The three A's of frailty: Aging, atrophy and apoptosis in skeletal muscle. May 2004
11. Geriatric Research Conference, Central Arkansas Veterans Health Care System, North Little Rock, AR. Atrophy, Aging and Apoptosis: the regulation of skeletal muscle size with aging. June 2004
12. Gordon Research Conference: Biology of Aging. Aussois, France, September 12-17, 2004. Title: Atrophy and Apoptosis in Aging Muscle.
13. Biochemistry Department University of Arkansas for Medical Sciences. April 27, 2005. Title: The role of apoptosis in skeletal muscle and its relevance to sarcopenia.
14. College of Health Sciences, University of Kentucky, Lexington. September 19, 2005. Title: Controlling skeletal muscle size: a role for nuclear apoptosis?
15. College of Medicine, Orthopaedics, University of Arkansas for Medical Sciences at Little Rock. December 20, 2005. Title: Role of stem cells in skeletal muscle size regulation.
16. Frontiers in Myogenesis meeting. Pine Mountain, GA, May 1, 2006. Title: Translocation of Endonuclease G is associated with nuclear apoptosis at the initiation of muscle atrophy.
17. Department of Aging and Geriatric Research, University of Florida, Gainesville. May 22, 2006. Title: Aging, Atrophy and Apoptosis: Failing "A's" for Frailty.
18. Department of Physiology, University of Kentucky, Lexington, January 31, 2007. Title: Skeletal muscle apoptosis: the potential role of endonuclease G during atrophy.
19. Department of Clinical Sciences, University of Kentucky, Lexington, February 22, 2007. Title: Sarcopenia: molecular mechanisms underlying skeletal muscle atrophy.
20. Department of Graduate Clinical Nutritional Sciences, University of Kentucky, Lexington, March 21, 2007. Title: Skeletal muscle atrophy and aging: double trouble?
21. Department of Applied Physiology and Kinesiology, University of Florida, Gainesville, March 29, 2007. Title: Disuse and aging: double trouble for skeletal muscle?
22. Department of Laboratory Animal Resources, University of Kentucky, Lexington, June 14, 2007. Title: Animal models to mimic disuse atrophy.
23. Department of Pharmacology, University of Kentucky, Lexington, December 13, 2007. Title: Skeletal muscle atrophy with disuse and aging: searching for commonalities and differences.
24. College of Health Sciences, University of Kentucky, April 29, 2008. Title: Age-related differences in muscle properties in the response to disuse.

25. Bispebjerg Symposium on Sports Medicine: Skeletal muscle atrophy, mechanical and molecular adaptations to aging and disuse. Copenhagen, Denmark, December 11, 2008. Title: Is the role of apoptosis the same in sarcopenia and disuse muscle atrophy?
26. Experimental Biology 2010. APS Mentoring Symposium. Title: The other things you do: teaching and service. Anaheim, CA, April 27, 2010.
27. SCOBIRC, University of Kentucky. Title: Cold shock protein RBM3 attenuates cell death in myoblasts. May 20, 2010.
28. Canadian Society for Exercise Physiology. Title: Muscle atrophy and aging: is there a role for apoptosis? Toronto, Canada, November 5, 2010.
29. Barshop Institute For Longevity & Aging, University of Texas Health Sciences Center San Antonio. Title: Aging and Disuse: Double Trouble for Skeletal Muscle. April 28, 2011
30. Muscle Forum. University of Kentucky. Title: Aging and Disuse: Double Trouble for Skeletal Muscle. June 2011
31. Advances in Skeletal Muscle Biology in Health and Disease. Title: Age-related differences in the regulation of skeletal muscle size in rats. Gainesville, Florida, February 22-24, 2012.
32. Department of Kinesiology, University of Kentucky. Title: Aging and inactivity: what are the consequences? March 30, 2012
33. Mouse Healthspan: why life span is no longer enough. Nathan Shock Center Conference on Aging. Title: Assessing functional consequences of acute inactivity in the aged. October 18-21, 2012
34. Dean's lecture, College of Allied Health Sciences, Georgia Regents University, Augusta, Georgia. Title: Inactivity and aging: decreased potential for musculoskeletal recovery. February 12, 2013.
35. Muscle Forum, University of Kentucky: In Search of a Role for Endonuclease G in Muscle Size Regulation. May 2013
36. Muscle regrowth: Does age make a difference? American Aging Association (AGE) annual meeting, Baltimore, Maryland. May 31-June 3, 2013. **Session Chair**
37. Muscle Forum, University of Kentucky: Role of cold shock protein RBM3 in muscle. September, 2013
38. The 2013 Nathan Shock Center Conference on Aging. Title: Muscle stem cells and aging: do satellite cells play a role in sarcopenia? Bandera, Texas, October 17-20, 2013.
39. Colorado State University, Department of Health and Exercise Science, Fort Collins, CO. Title: Impaired skeletal muscle regrowth after atrophy with aging: possibilities for interventions. February 14, 2014.
40. CCTS meeting, Lexington, KY. Title: Massage as an intervention for muscle growth in the aged. March 27, 2014.
41. CCTS meeting, Lexington, KY. Title: Community-based exercise program for cancer survivors: opportunities and challenges, March 25, 2015
- Chair of session** entitled: Physical activity in chronic disease.
42. ACSM annual meeting, San Diego, CA. Title: miRNA response to cyclic compressive loading, aka massage. May 2015
43. Capilouto, G.J., Cunningham, T., Frederick, E., Dupont-Versteegden, E., Desai, N. & Butterfield, T. *Objectively measuring oral strength and SSB coordination during nutritive sucking*. Peer-reviewed Presentation. National Association of Neonatal Therapists Annual Conference, Litchfield, AZ. April 2015.
44. DPT Research Day, PT division, University of Kentucky Title: Aging, Fat & Life: the Serendipity of a Researcher's Career. May 22, 2015.
45. Muscle Forum, University of Kentucky. Esther Dupont-Versteegden/Gilson Capilouto/Sami Michaelis. Title: Characterization of muscle phenotype of neonatal mouse tongue. September 3, 2015
46. University of Louisville: Department of Anatomical Sciences and Neurobiology. Title: Growth promoting effects of massage: unraveling the mechanisms. November 5, 2015.
47. Conference: Advances in Skeletal Muscle Biology in Health and Disease. Title: Reduced voluntary wheel running in satellite cell depleted mice: from muscle adaptation to impaired coordination. University of Florida, Myology Institute, January 20-22, 2016.
48. 3<sup>rd</sup> Annual UK College of Health Sciences Research Day. Title: Massage as a novel intervention to combat muscle wasting. April 21, 2016
49. Skeletal Muscle Satellite Cells and Regeneration. FASEB Summer Research Conference, Keystone, CO. Title: Increase in Pax3+ cells may compensate for the lack of effect of Pax7+ cell ablation in diaphragm muscle. July 24-28, 2016

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## Invited Editorial

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37. Xiao, R. and **Dupont-Versteegden, E.E.** Apoptosis resistance of differentiated myotubes is associated with enhanced anti-death mechanisms. *The Physiologist*, 2008.
38. McMullen, C.A., Ferry, A., Gamboa, J.L., Andrade, F.H., and **Dupont-Versteegden, E.E.** Age-related changes of cell death pathways in rat extraocular muscle. *Adult skeletal muscle symposium: clinical problems, molecular targets*. Lexington, KY, 2008
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41. Barnes, B., Rich, M. Ferry, A.L, and **Dupont-Versteegden, E.E.** Apoptosis contributes to skeletal muscle atrophy in critical illness myopathy. National Conference on Undergraduate Research. University of Wisconsin, April 2009.
42. Ferry, A.L., and **Dupont-Versteegden, E.E.** The effects of cold shock protein, RBM3, on skeletal muscle cells in vitro. CCTS Conference Lexington KY, 2009
43. Ferry, A.L., Vanderklish, P.W., and **Dupont-Versteegden, E.E.** Over-expression of cold shock protein RBM3 is associated with enhanced survival of skeletal muscle cells in vitro. Symposium: Making Muscle in the Embryo and Adult, 2009
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45. Barnes, B., Rich, M., Ferry, A.L., and **Dupont-Versteegden, E.E.** Skeletal muscle atrophy in critical illness myopathy is associated with muscle fiber type specific apoptotic responses. Muscle Center Retreat, 2009.
46. Abshire, S.M., **Dupont-Versteegden, E.E.**, Kelly, D.G., Cunningham, T.J., and Butterfield T.A. Lymphangiogenesis is Dependent upon the Magnitude of Cyclic Compressive Load: Implications for Manual Lymphatic Drainage, ACSM, in press, 2010
47. Barnes, B. T., Rich, M. M., Ferry, A. L., **Dupont-Versteegden, E. E.** Skeletal muscle atrophy in critical illness myopathy is associated with muscle fiber type specific apoptotic responses. FASEB J, 2010
48. Kelly, D.G., Abshire, S.M., **Dupont-Versteegden, E.E.**, and Butterfield, T.A. Lymphangiogenesis is Dependent upon the Magnitude of the Compressive Load: Preliminary Implications for Manual Lymphatic Drainage. National Lymphedema Network Conference, 2010.
49. Fowler, T.W., Nicks, K.M., Akel, N.S., **Dupont-Versteegden, E.E.**, Suva, L.J., and Gaddy, D. Reambulation reverses disuse-stimulated bone loss via normalization of mesenchymal cell and osteoclast differentiation. Endo 2010, Endocrine Society annual meeting. San Diego, CA, June 19-22, 2010.
50. Barnes, B. T., Rich, M. M., Ferry, A. L., **Dupont-Versteegden, E. E.** Skeletal muscle atrophy in critical illness myopathy is associated with muscle fiber type specific apoptotic responses. NCUR2010 meeting, Missoula, Montana, April 2010.
51. McCarthy, J.J., **Dupont-Versteegden, E.E.**, Miyazaki, M., Mula, J., Esser, K.A., Grimes, B., Van Zant, G., Peterson, C.A. Satellite cells are not necessary for skeletal muscle hypertrophy. FASEB Conference: Skeletal Muscle Satellite & Stem Cells, Carefree, AZ, July 2010.
52. Mitov, M.I., Tilley, A., Patwardhan, A., **Dupont-Versteegden, E.E.**, Campbell, K.S. Sex differences in contractile properties of rat myocardium in response to simulated microgravity. Biophysical Society 55th Annual Meeting, 2011.
53. Ferry, A.L. and **Dupont-Versteegden, E.E.** Specific mRNAs and miRNAs identified as targets for cold shock protein RBM3. College of Medicine University of Kentucky, October 2010  
\* First prize poster winner in staff category.
54. Waters, C.M., Abshire, S.M., **Dupont-Versteegden, E.E.**, Butterfield, T.A. The magnitude of applied cyclic compressive load influences inflammatory cell infiltration but not lymphangiogenesis in healthy skeletal muscle. Center for Muscle Biology Retreat, University of Kentucky, October 2010.
55. McMullen, C.A., Ferry, A.L., Gamboa, J.L., **Dupont-Versteegden, E.E.**, Andrade, F.H. The aging rat diaphragm: changes in contractile function and mitochondria content. Experimental Biology 2011, April 2011.
56. McCarthy, J.J., Mula, J., Miyazaki, M., **Dupont-Versteegden, E.E.**, Keller, C., Esser, K.A., Grimes, B., Van Zant, G., Peterson, C.A. Robust skeletal muscle hypertrophy in satellite cell depleted muscle. Experimental Biology 2011, April 2011.
57. Hoch, J.M., Mula, J., and **Dupont-Versteegden, E.E.** The effects of aging and altered activity on pax-7 positive satellite cells and cross sectional area of soleus muscle in rats. CCTS meeting, Lexington, KY, April 21, 2011
58. White, J.L.R., and **Dupont-Versteegden, E.E.** : Changes in nuclear number and myonuclear domain size with aging. CCTS meeting, Lexington, KY, April 21, 2011

59. Waters, C, **Dupont-Versteegden, E.**, and Butterfield, T.A. Alterations in gene expression due to differing magnitude of cyclic compressive loads in healthy skeletal muscle. Proceedings of American Society of Biomechanics, 2011
60. Waters, C., **Dupont-Versteegden, E.**, and Butterfield, T.A. Effect of cyclic compressive loading on ED1+ and ED2+ macrophages in healthy skeletal muscle in vivo. Proceedings of American Society of Biomechanics, 2011
61. Fowler, T.W., Williams, T., Akel, N.S., Hogue, W., Swain, F., **Dupont-Versteegden, E.E.**, Suva, L.J., and Gaddy, D. Reambulation after disuse causes differential age-dependent responses in bone strength and bone formation in trabecular and cortical bone. ASBMR, San Diego, September 15-19, 2011
62. Capilouto, G., Cunningham, T., Challa, H., Frederick, E., **Dupont-Versteegden, E.**, Desai, N., and Butterfield, T. Effects of non-oral feeding on infant tongue muscle mass and force. Joint Conference 7<sup>th</sup> Kentucky Innovation and Entrepreneurship and 16<sup>th</sup> EPSCoR Conference. May 2011.
63. Capilouto, G.J., Cunningham, T., Challa, H., **Dupont-Versteegden, E.**, Desai, N. and Butterfield, T. Pilot investigation of infant tongue muscle mass and force. American Speech-Language-Hearing Association, November 2011. Chosen for oral presentation.
64. Jackson, J.R., Fry, C.S., Lee, J.D., Mula, J., Erfani, R.A., Kirby, T.J., Ubele, M.F., Lawson, B.A., Campbell, K.S., McCarthy, J.J., Peterson, C.A., and **E.E. Dupont-Versteegden** Satellite Cells are not a Prerequisite for Skeletal Muscle Regrowth Following Unloading-Induced Atrophy. Center for Muscle Biology Fall Retreat, October 27, 2011.
65. Shah, A., White, J., Ferry, A., and **Dupont-Versteegden, E.** P-bodies are elevated with age-, but not disuse-associated skeletal muscle atrophy. Posters at the Capital, January 26, 2012.
66. **Dupont-Versteegden, E.E.**, Ferry, A.L., Hoch, J.M., and White, J.L. Attenuated muscle regrowth with age is not associated with differences in anabolic and catabolic pathways. FASEB J, April 2012
67. Jackson, J.R., Fry, C.S., Lee, J.D., Mula, J., Erfani, R.A., Kirby, T.J., Ubele, M.F., Lawson, B.A., Campbell, K.S., McCarthy, J.J., Peterson, C.A., and **Dupont-Versteegden, E.E.** Satellite Cells are not Prerequisite for Skeletal Muscle Regrowth Following Unloading-Induced Atrophy. FASEB J., April 2012.
68. Shah, A., White, J., Kirby, T., Ferry, A., and **Dupont-Versteegden, E.E.** P-bodies are elevated with age-, but not disuse-associated muscle atrophy. NCUR 2012 meeting, March 2012
69. Waters, C.M., Abshire, S.M., **Dupont-Versteegden, E.E.**, and Butterfield, T.A. Massage potentiates cell survival mechanisms in healthy skeletal muscle through the activation of autophagy. NATA Foundation, June 2012.
70. Waters-Banker, C., **Dupont-Versteegden, E.E.**, and Butterfield, T.A. Immunomodulation and cell survival: the mechanotransductive properties of massage. Neuromuscular Plasticity Seminar, Gainesville, Florida, March 15, 2012.
71. **Dupont-Versteegden, E.**, Shah, A., Richards-White, J., and Confides, A. Smaller myonuclear domain in aged muscle is associated with elevated RNA degradation. Gerontological Society of America Annual meeting abstract, November, 2012.
72. Moore, S., Waters, C., Butterfield, T., and **Dupont-Versteegden E.** ED2 Macrophage Number is Dependent upon Loading Conditions in Aged Muscle. Center for Muscle Biology Retreat, October 25, 2012.
73. Confides, A., Judge, A., and **Dupont-Versteegden, E.** RNA-binding motif protein 3 (RBM3) over-expression results in larger muscle fiber size in vivo and in vitro. Center for Muscle Biology Retreat, October 25, 2012.
74. Shah, A., Confides, A., Richards-White J., and **Dupont-Versteegden, E.** RNA degradation is elevated with age-, but not disuse-associated skeletal muscle atrophy. Center for Muscle Biology Retreat, October 25, 2012.
75. Shah, A., Confides, A., Richards-White J., and **Dupont-Versteegden, E.** RNA degradation is elevated with age-, but not disuse-associated skeletal muscle atrophy. Experimental Biology, FASEB J., April 2013
- \* Received the poster and abstract BRUCE award for Excellence in Undergraduate Research from APS
76. Moore, S., Waters, C., Butterfield, T., and **Dupont-Versteegden E.** ED2 Macrophage Number is Dependent upon Loading Conditions in Aged Muscle. ACSM, April 2013
77. Waters-Banker, C., **Dupont-Versteegden, E.**, Butterfield, T.A. Immunomodulatory genes in skeletal muscle are responsive to mechanical loading following massage mimetic. ACSM, April 2013.
78. Brownell, E., Abshire, S. **Dupont-Versteegden, E.**, Butterfield, T.A. Mechanical modulation of the mTOR pathway is dependent upon the magnitude of cyclic compressive load. ACSM, April 2013.



79. Lee, J.D., Mula, J., Fry, C.S., Kirby, T.J., Jackson, J.R., Beggs, J.A., Campbell, M.S., Kmiec, T.E., **Dupont-Versteegden, E.E.**, McCarthy, J.J., Peterson, C.A. Sarcopenia and hypertrophy in aged skeletal muscle are independent of lifelong muscle stem cell depletion. *Experimental Biology*, FASEB J. April 2013.
80. Jackson, J.R., Fry, C.S., Kirby, T.J., Lee, J.D., Werker, J.H., Dean, C.S., McCarthy, J.J., **Dupont-Versteegden, E.E.**, Peterson, C.A. Satellite Cell Depletion Negatively Impacts Voluntary Wheel Running Performance in Mice. *Experimental Biology*, FASEB J. April 2013.
81. Fry, C.S., Lee, J.D., Jackson, J.R., Kirby, T.J., **Dupont-Versteegden, E.E.**, McCarthy, J.J., Peterson, C.A. Satellite cells regulate the skeletal muscle environment by inhibiting fibroblast function. *Experimental Biology*, FASEB J. April 2013.
82. Burns, E., **Dupont-Versteegden, E.E.** and Cooper, R.L. (2013). The effects of K<sup>+</sup> on skeletal muscle, synaptic transmission, and the relationship with deep tissue injury of muscle. Spring Neuroscience Day, University of Kentucky, Lexington, Kentucky. April 8, 2013.
83. Chaillou T., Jackson J.R., England J.H., Lee, J.D., **Dupont-Versteegden E.E.**, Esser K.A., McCarthy J.J. Identification of common gene expression patterns in two different models of skeletal muscle growth. College of Medicine Research Day, University of Kentucky, March 2013.
84. Romik Patel, Amy Confides, Rich Miller, and **Esther Dupont-Versteegden**. Elevated protein abundance of RNA-binding motif protein 3 (RBM3) with calorie restriction in mice. Undergraduate showcase University of Kentucky, April 2013.
85. Burns, E., **Dupont-Versteegden, E.E.** and Cooper, R.L. (2013). The effects of K<sup>+</sup> on skeletal muscle, synaptic transmission and the relationship with deep tissue injury of muscle. Annual meeting of the Kentucky Academy of Sciences. Nov.8-9, 2013 at Morehead Univ.
86. Confides, A., Masternak, M., Kopchick, J., and **Dupont-Versteegden, E.E.** RBM3 (RNA-binding motif protein 3) protein abundance is elevated in skeletal muscle of long lived mice. Center for Muscle Biology Retreat, KY, November 2013
87. Abshire, S., Confides, A., Brownell, E., **Dupont-Versteegden, E.**, and Butterfield, T.A. The Effect of Cyclic Compressive Loading on Intracellular Stress Pathways in Skeletal Muscle. Center for Muscle Biology Retreat, KY, November 2013.
88. M. Lehman, C. Fry, J. Jackson, J. Lee, J. McCarthy, C. Peterson, and **E. Dupont-Versteegden**. Lifelong Satellite Cell Depletion does Not Change Muscle Phenotype. National Conference for Undergraduate Research, April 2014.
89. Waters-Banker, C., **Dupont-Versteegden, E.**, and Butterfield, T.A. Lack of Neutrophils in Skeletal Muscle Following Damaging Eccentric Exercise in Rats. Thematic poster, ACSM, June 2014
90. Waters-Banker C, **Dupont-Versteegden EE**, Butterfield TA. A Single Bout of Massage Following Eccentric Exercise Produces an Anti-Inflammatory Cross-Over Effect in Skeletal Muscle. NATA, June 2014
91. Kern, PA, Finlin, BS, Zhu, B, Rasouli, N, and **Dupont-Versteegden, EE**. Temperature and seasonal changes in human subcutaneous (SC) white adipose tissue (WAT): evidence for browning and inhibition by inflammation. American Diabetes Association, San Francisco, June 13-17, 2014
92. Confides, A., Judge, A., and **Dupont-Versteegden**. Muscle growth effect of RNA-binding motif protein 3 (RBM3) is associated with binding to muscle-specific mRNAs and miRNAs. *Advances in Skeletal Muscle Biology in Health and Disease Conference*, Gainesville, FL, March 5-7, 2014.
93. Myonuclear transcriptional output during muscle hypertrophy in the absence of satellite cell fusion. Tyler J. Kirby, Christopher S. Fry, Janna R. Jackson, Thomas Chaillou, **Esther E. Dupont-Versteegden**, Charlotte A. Peterson, and John J. McCarthy. *Advances in Skeletal Muscle Biology in Health and Disease Conference*. Gainesville, March 5-7, 2014.
94. Thenappan, A., Burns, E., Vaughn, M., Bigdeliazari, S., **Dupont-Versteegden, E.E.** and Cooper, R.L. The effects of muscle injury on synaptic transmission, axon conduction and muscle in relation to K<sup>+</sup> in deep tissue injury. Bluegrass Chapter of Society for Neuroscience annual meeting. Lexington, KY. March, 27, 2014.
95. Abshire, S.M., Confides, A.L., **Dupont-Versteegden, E.E.**, Butterfield, T.A. . The Effect of Cyclic Compressive Loading on Immune System Related Responses in Young and Old Rats. CCTS Conference, Lexington, KY, March 27, 2014
96. Confides, A. L., Abshire, S.M., Butterfield, T.A., **Dupont-Versteegden, E.E.** Effect of cyclic compressive loading on protein homeostasis of young and old rats. CCTS Conference, Lexington, KY, March 27, 2014.



97. Waters-Banker C, Abshire S, **Dupont-Versteegden EE**, Sondag J, Butterfield TA. Application of a Post-Exercise Massage-Mimetic Induces a Temporal Shift of the Inflammatory Response Following Repeated Eccentric Contractions. 7th World Congress of Biomechanics, Boston, MA, July 6-11, 2014.
98. Schultz, M.P., Krall, R., **Dupont-Versteegden, E.E.**, May, S., Johnson, D., Zeidler-Watters, K., and Cooper, R. Educational modules of skeletal muscle anatomy and function for middle and high school students with models and active data gathering. KYPHYS meeting, Louisville, March 31, 2014
99. McLoon, L.K., Peterson, C.A., McCarthy, J.J., **Dupont-Versteegden, E.E.** Up-regulation of a unique population of myogenic precursor cells in Pax7-depleted extraocular muscles. Skeletal muscle satellite and stem cells Meeting, Steamboat Springs, CO, July 20-25, 2014
100. Capilouto, G., Cunningham, T., Fredrick, E., **Dupont-Versteegden, E.**, Desai, N., Butterfield, T. Tongue muscle characteristics of preterm and full term infants during nutritive and nonnutritive sucking. ASHA meeting, November 20-22, 2014. **NOTE:** selected for oral presentation.
101. Philip A. Kern, Brian S. Finlin, Beibei Zhu, Neda Rasouli, **Esther E. Dupont-Versteegden** Temperature and seasonal changes in human subcutaneous (SC) white adipose tissue (WAT): evidence for browning and inhibition by inflammation. Selected for podium presentation at the Barnstable Brown Obesity and Diabetes Research Day, May 20, 2014.
102. Cooper, R.L., Majeed, Z.R., Malloy, C., Potts, D., Zeidler-Watters, K., Krall, R.M., Johnson, D., Mayo, S., Zwanzig, G., Anderson, H., Colgan III, W., Chung, W.-Y. and **Dupont-Versteegden, E.E.** Citizen science with high school students and adults from around the world participating in analysis of synaptic transmission. Annual meeting of Society for Neuroscience. Washington, D.C, USA, 2014
103. **Esther E. Dupont-Versteegden**, Benjamin F. Miller, Karyn L. Hamilton, Fredrick F. Peelor III, Kathryn Baeverstad, Sarah M. Abshire, Amy L. Confides, Timothy A. Butterfield. Massage enhances muscle regrowth response through increased protein synthesis in rat gastrocnemius muscle. ACSM Integrative Biology of Exercise meeting, Miami Beach, Florida, Sept. 17-20, 2014
104. Sarah M. Abshire, Timothy A. Butterfield, Amy L. Confides, and **Esther E. Dupont-Versteegden** Massage has a larger effect on protein remodeling pathways in muscles of aged versus young rats. ACSM Integrative Biology of Exercise meeting, Miami Beach, Florida, Sept. 17-20, 2014
105. Janna R. Jackson, Tyler J. Kirby, Christopher. S. Fry, Fujun Liu, Lin Yang, John J. McCarthy, **Esther E. Dupont-Versteegden**, Charlotte A. Peterson. Voluntary running capacity is markedly reduced in satellite cell depleted mice. ACSM Integrative Biology of Exercise meeting, Miami Beach, Florida, Sept. 17-20, 2014
106. Kirby, T.J., Fry, C.S., **Dupont-Versteegden, E.E.**, Peterson, C.A., and McCarthy, J.J. Myonuclei dominate the skeletal muscle transcriptional output during the onset of hypertrophy. ACSM Integrative Biology of Exercise meeting, Miami Beach, Florida, Sept. 17-20, 2014
107. Cooper, R.L., Majeed, Z.R., Malloy, C., Zeidler-Watters, K., Krall, R.M., Johnson, D., Mayo, S., Colgan III, W., Chung, W.-Y., Megighian, A. and **Dupont-Versteegden, E.E.** (2015). Citizen science with high school students and adults from around the world participating in analysis of synaptic transmission. Society for Integrative and Comparative Biology. Annual Meeting. January 3-7, 2015 West Palm Beach, FL. Oral presentation.
108. Y. Zhu, A. Confides, R. Cooper, and **E. Dupont-Versteegden**. Attenuated RBM3 induction by cold shock in myotubes. Kentucky Academy of Science Annual meeting, November 15, 2014.  
\* Won third prize for oral presentation.
109. Majeed, Z.R., Confides, A.L., Abshire, S.M., Butterfield, T.A., and **Dupont-Versteegden, E.E.** Massage enhances skeletal muscle regrowth after atrophy: Role of intracellular signaling pathways and serum exosomal microRNAs. Center for Muscle Biology Research Day, Lexington, KY, October 2014
110. Maroudas, E., Peterson, D., Noehren, B., The, S., Donohoo C., **Dupont-Versteegden, E.** YMCA LIVESTRONG Program Analyzed: Benefits for Cancer Survivors. Center for Muscle Biology Research Day, Lexington, KY, October 2014
111. Confides, A.L., **Dupont-Versteegden, E.E.**, Abshire, S.M., and Butterfield, T.A. Massage has a larger effect on protein remodeling pathways in muscles of aged versus young rats. Center for Muscle Biology Research Day, Lexington, KY, October 2014
112. Maroudas, E., Peterson, D., Noehren, B., The, S., Donohoo C., **Dupont-Versteegden, E.** YMCA LIVESTRONG Program Analyzed: Benefits for Cancer Survivors. ACSM Annual Meeting, San Diego, May 2015.

113. Brown J.L., Confides, A.L., Jackson, J.R., Andrade, F.H., and **Dupont-Versteegden, E.E.** The Effect of Hypoxia on Aging Diaphragm Muscle Following Life-Long Satellite Cell Ablation. Experimental Biology, Boston, March 2015, FASEB J.
- \* Received the poster and abstract BRUCE award for Excellence in Undergraduate Research from APS
114. Hayek, A. Confides, A.L., Abshire, S.M., Butterfield, T.A. and **Dupont-Versteegden, E.E.** Massage is associated with an increase in satellite cell number in young and old rats. National Conference for Undergraduate Research, Cheney, Washington, April 2015.
115. Rudy, M., Abshire, S.M., Confides, A.L., Michaelis, S., Butterfield, T.A., and **Dupont-Versteegden, E.E.** Lack of systemic effect of massage on non-massaged soleus muscle in rats. National Conference for Undergraduate Research, Cheney, Washington, April 2015.
116. Kern, P.A., Finlin, B.S., Zhu, B., Dupont-Versteegden, E.E. Cold exposure of human subcutaneous (SC) white adipose tissue (WAT) results in increased meteorin-like and IL4 along with increased adipose beiging. American Diabetes Association's 75th Scientific Sessions, June 5-9, 2015 in Boston, MA
117. **Esther E. Dupont-Versteegden**, Zana R. Majeed, Amy L. Confides, Sarah M. Abshire, Timothy A. Butterfield. miRNA Responses to Cyclic Compressive Loading (Massage) During Muscle Recovery from Atrophy. ACSM Annual meeting, May 2015.
118. P.A. Kern, B.S. Finlin, B. Zhu, **E.E. Dupont-Versteegden**. Cold exposure of human subcutaneous adipose results in increased meteorin-like and IL4 and increased beiging: role of mast cells. Barnstable Brown Center for Diabetes and Obesity Research Day, May 2015.
119. A. Thenappan, E. Burns, M. Vaughn, **E.E. Dupont-Versteegden** and R.L. Cooper. An undergraduate education module based on a research question: The effects of muscle injury on synaptic transmission, axon conduction and muscle physiology in relation to deep tissue injury. Society for Neuroscience, Chicago, November 2015.
120. Robinson, Taylor, Jackson, J., Confides, A., Peterson, C., **Dupont-Versteegden, E.E.** Muscle spindle changes in satellite (stem) cell depleted mice alter coordinative balance. National Society of Black Engineers Fall Regional Conference. Memphis, November 2015.
121. Johnson, A., Henning, A., McLaughlin, A., Morris, P., Darbee, J., and **Dupont-Versteegden, E.** Retrospective chart review of physical therapy practice in a cardiothoracic intensive care unit. NEXT APTA meeting, June 2016
- \* Received APTA NEXT Conferene 2016 Abstract Special Recognition.
122. Hayek, A. Confides, A.L., Abshire, S.M., Miller, B., Hamilton, K., Baeverstad, K., Peelor, F., Butterfield, T.A., and **Dupont-Versteegden, E.E.** Massage induces an increase in DNA synthesis and satellite cell number in rat muscle recovering from atrophy. Experimental Biology, San Diego, April 2016.
123. Konopka, A.R., Ehrlicher, S.E., Baeverstad, K.A., Reid, J., Peelor III, F.F., Confides, A.L., **Dupont-Versteegden, E.E.**, Miller, B.F., and Hamilton, K.L. Contribution of satellite cells to skeletal muscle proteostasis during advanced age and aerobic exercise. Experimental Biology, San Diego, April 2016.
- \*selected for podium presentation
124. S. Gough, A.L. Confides, **E.E. Dupont-Versteegden**. The Effect of Hypoxia on Young Diaphragm Muscle Following Satellite Cell Ablation. National Conference for Undergraduate Research, Asheville, North Carolina, April 2016.
125. Hunt E.R., A. Shah, A.M. Hayek, A.L. Confides, S.M. Abshire, T.A. Butterfield, and **E.E. Dupont-Versteegden**. Lack of regrowth-promoting effect of massage in aged rats is associated with differential response of satellite cells and extracellular matrix. Advances in Skeletal Muscle Biology in Health and Disease Conference, Gainesville, FL, January, 2016
126. Robinson, T., Jackson, J., Confides, A., and **Dupont-versteegden, E.** Depletion of satellite cells leads to changes in muscle spindles. National Council for Undergraduate Research, Asheville, NC, April 2016
127. Philip A. Kern, Brian S. Finlin, Beibei Zhu, Amy L. Confides, Brianna D. Harfmann, **Esther E. Dupont-Versteegden**. Human subcutaneous (SC) white adipose tissue (WAT) beiging after cold exposure; role of mast cells, histamine, and IL4. American Diabetes Association, New Orleans, June 10-14, 2016
128. Hunt E., Abshire S., Confides A., **Dupont-Versteegden E.**, Butterfield TA. Application of an Optimal Cyclic Compressive Load as a Massage-Mimetic Does Not Induce Damage to Young and Aged Rat Skeletal Muscle. CCTS Research Day, Lexington, KY, April 2016

129. Auberle, C., Maroudas, E., Peterson, D., Donohoo C., **Dupont-Versteegden, E.** Improvement in Quality of Life through YMCA LIVESTRONG Wellness Program. CCTS Research Day, Lexington, KY, April 2016
130. Evan Reister, Amy L. Confides, **Esther E. Dupont-Versteegden.** Depletion of satellite cells does not cause an increase in extracellular matrix in diaphragm muscle of running mice. CCTS Research Day, Lexington, KY, April 2016
131. Ghazala, L.S., Confides, A.L., and **Dupont-Versteegden, E.E.** Myonuclear number is decreased in aged diaphragm of satellite cell depleted mice. CCTS Research Day, Lexington, KY, April 2016
132. Johnson, A., Henning, A., Morris, P., McLaughlin, A., **Dupont-Versteegden, E.** Retrospective investigation of CT ICU Physical Therapy Practice. CCTS Research Day, Lexington, KY, April 2016
133. Henning, A., Johnson, A., **Dupont-Versteegden, E.E.** Critical Appraisal Topic and Future Research: Frailty pre-surgery predicts functional outcome post-surgery in patients with aortic valve implantation. CCTS Research Day, Lexington, KY, April 2016
134. Kearns, E. and **Dupont-Versteegden, E.E.** The Amount of Moderate to Vigorous Physical Activity Needed for Weight Loss in Children Age 8-12: A Critical Appraisal Topic. CCTS Research Day, Lexington, KY, April 2016
135. Brian S. Finlin, Beibei Zhu, Amy L. Confides, Brianna D. Harfmann, **Esther E. Dupont-Versteegden**, Philip A. Kern. Immune Response and Role of Mast cells During Cold Exposure of Human Subcutaneous White Adipose Tissue. Barnstable Brown Obesity and Diabetes Research Day, May 2016.
136. **Dupont-Versteegden, E.**, Murach, K., Jackson, J., Ghazala, L., Reister, E., Ho, A., Potts, C., Bugg, A., McCarthy, J., Peterson, C.A. and Confides, A. Increase in Pax3+ cells may compensate for the lack of effect of Pax7+ cell ablation in diaphragm muscle. Skeletal muscle satellite cells and regeneration, Keystone, CO, July 24 -28, 2016
- \* Selected for oral presentation.
137. Hunt, E.R., Hayek, A.M., Confides, A.L., Abshire, S.M., Butterfield, T.A., and **Dupont-Versteegden, E.E.** Massage-induced changes in membrane permeability are associated with elevated satellite cells and Murf-1 protein. The Integrative Biology of Exercise VII, American Physiological Society, November 2-4, 2016.

#### **Patents and Intellectual Property Agreements**

1/29/08 Intellectual property disclosure entitled: RNA-binding motif protein-3 (RBM3) as an adaptive response to environmental stress in skeletal muscle.

#### **Other Scholarly activities:**

2008 Served as an Expert for Muscle Physiology in the Muscle Chapter of the textbook entitled: Exercise Physiology, written by Scott Powers and Edward T. Howley.

October 2010	Outside reviewer for Promotion and tenure dossier Dr. Joe Quadrilatero, Department of Kinesiology, University of Waterloo, Canada
September 2015	Outside reviewer for Promotion and tenure dossier Dr. Moh Malek Department of Health Care Services, Wayne State University

#### **Instruction:**

##### **Teaching Assistant:**

Physiology for Physical Therapy and Occupational Therapy Students, University Texas Health Science Center at San Antonio (1990,1991,1992,1993)

Experiments in Physiology for Graduate Students, University Texas Health Science Center at San Antonio (1991,1992,1993)

**Courses taught:**

Physiology for Occupational Therapy Students, University Texas Health Science Center at San Antonio. Muscle Physiology (1992,1993,1994)

Summer Class for High School Science Teachers, University of Arkansas for medical Sciences. Muscle Function and Molecular Biology of Muscular Dystrophy (1996)

Telecommunication Outreach Program, University of Arkansas for Medical Sciences. Muscular Dystrophy: Can We Repair Muscle Defects with Gene Therapy? (1998)

Nutrition and Aging XIV: Nutritional Syndromes in the Elderly. Mechanisms of muscle atrophy and hypertrophy. (1999)

Physiology Journal Club: Effects of space flight and hind limb unloading. Dept. Physiology and Biophysics, University of Arkansas for Medical Sciences. (Spring, 2003)

General Physiology Graduate Course: Muscle Physiology. Dept. Physiology and Biophysics, University of Arkansas for Biomedical Sciences (Fall, 2003, 2004, 2005).

Physiology Journal Club: Intracellular Signaling in Skeletal Muscle. Dept. Physiology and Biophysics, University of Arkansas for Medical Sciences. (Spring, 2004)

Physiology Journal Club: Apoptosis. Dept. Physiology and Biophysics, University of Arkansas for Medical Sciences. (Spring, 2006)

Case studies: (1) Neuromuscular Junction; (2) Endocrine: first year medical students. Dept. Physiology and Biophysics, University of Arkansas for Medical Sciences. (Spring, 2006)

Biology of Aging: Muscle Aging. Department of Gerontology, University of Kentucky (Fall 2006, 2007, 2009-2011)

Cell Biology and Signaling I, IBS 603: Cell Death lectures. Integrative Biomedical Sciences Graduate Program, University of Kentucky (Fall 2009, 2010, 2011)

RHB714:Critical Research Appraisal: Panel discussion participant on the value and limitations of basic science. (Spring 2010)

PT686: Skeletal Muscle Plasticity, specialty elective Physical Therapy, University of Kentucky (Spring 2011, 2014)

RHB788, Independent Study: Muscle Cell Signaling. Chris Waters, Fall 2011, 3 credit hours.

RHB788, Independent Study: Advanced Statistical Analysis of Large Data Sets. Chris Waters, Spring 2012, 3 credit hours.

RHB789, Research Apprenticeship: Changes in macrophage number with aging. Stephanie Moore, Fall 2012, 4 credit hours.

PT 831: Neurophysiology, Division of Physical Therapy, College of Health Sciences, University of Kentucky (Fall 2007-2015)

PT854: lecture on Physical Inactivity, Fall 2012, 2013, 2014, 2015

RHB788, Independent Study: Advanced Statistical Analysis of Large Data Sets, Kyle Leyshon, Spring 2014, 3 credit hours

RHB788, Independent study: Audrey Johnson, Spring 2015, 1 credit hour

RHB788, Independent Study: Audrey Johnson, Summer 2015, 3 credit hours  
January 2015 – present: Audrey Johnson, RHB788 and RHB789

RHB789: Research Apprenticeship: REDcap for data management and processing, Paul Kline, Fall 2015, 3 credit hours

### **Course Director**

PT 867: Research Design, Division of Physical Therapy, College of Health Sciences, University of Kentucky (Summer 2008-2016).

Professional Seminar, RHB 770, Grant writing, Department of Rehabilitation Sciences, Rehabilitation Sciences Doctoral Program, Spring 2010, 2012, 2014, 2016

Muscle Forum, RHB/PGY625, Department of Rehabilitation Sciences, College of Health Sciences, and department of Physiology, College of Medicine, Spring and Fall semesters 2011-present

### **Student Supervision:**

#### **Undergraduate**

June-July 2001: Kimberly Layman, Summer student, Arkansas Math and Science High School.  
June-July 2004: Kellie Nichols, BRIN summer student, Univ Ark Monticello, AR  
August 2008 - 2011: Academic advisor for Ben Barnes in his major: Aging and Gerontology  
June-August, 2009: Alex Wade, Dunbar Math and Science Research project  
May-August 2011: Aman Shah, University of Kentucky, Outreach Summer Project.  
May 2011 – August 2011: Branden Bell, Kentucky State University  
October 2011 - April 2012: Drake Hyman, University of Kentucky  
November 2011 - 2012: Jessica Batey, senior research project, Asbury College.  
August 2011 - 2013: Aman Shah, University of Kentucky  
May 2012 - May 2013: Kathryn Olson, High School senior project, Henry Clay High School.  
October-December 2012: An Ho, University of Kentucky (HSE595: 2 credits)  
October-December 2012: Romik Patel, University of Kentucky  
January – May 2013: Kim Nguyen, University of Kentucky (HSE595: 1 credit)  
January – May 2013: Romik Patel, University of Kentucky (HSE595: 3 credits)  
May 2013 – August 2013: Julie Sondag, summer project, Clemson University  
January 2013 – August 2014: Marin Lehman, University of Kentucky (BIO395: 6 credits)  
January 2014 – May 2014: Molly Listerman, University of Kentucky (HHS455, 1 credit)  
January 2014 – May 2014: Samantha Michaelis, University of Kentucky, (HHS455, 3 credits)  
January 2014 – August 2014: Kent Llanora, University of Kentucky  
May 2014 – August 2014: Kirsten Nitz, Wheaton College, Chicago. Capstone project.  
May 2014 – August 2014: Jenea Brown, Alma College, MI. APS summer undergraduate research fellow.  
August 2014 - December 2014: Morgan Rudy, University of Kentucky (BIO395: 3 credits)  
August 2014 – December 2014: Amanda Hayek, University of Kentucky (HHS455, 2 credits)  
August 2014 – December 2014: Samantha Michaelis, University of Kentucky, (HHS455, 3 credits)  
October 2014 – June 2015: Dominique Wade, University of Kentucky  
October 2014 – June 2015: Jiawei Zhao, University of Kentucky  
January 2015 – June 2015: Amanda Hayek, University of Kentucky (HHS455, 3 credits)  
May-August 2015: Amanda Hayek, University of Kentucky, APS fellowship  
May-August 2015: Sanna Gough, Centre College, Summer Research Internship  
June 2015: Olivia Malice, Georgia State University, GA  
August 2015- December 2015: Amanda Hayek, HHS455 (3 credits)  
August 2015 – present: Taylor Robinson, University of Kentucky, HHS455 (1 credit)  
August 2015 – present: Evan Reister, Transylvania University, Lexington, KY (for credit at Transy)  
August 2015 – present: Lina Ghazala, University of Kentucky, BIO395 (3 credits)

August 2015 – present: Murphy Powell, Dunbar High School

### **Undergraduate Research Certificate Advising**

Amanda Hayek, Human Health Sciences, awarded 2015

### **Graduate**

September 2002: Benjamin Peacock, Rotation, Second Year Physiology Graduate Student, UAMS

September-November 2004: Ying Su, Rotation, First Year Physiology Graduate Student, UAMS

March-May, 2005: Kristy Nicks, Rotation, First Year Physiology Graduate Student, UAMS

September 2003-December 2005: Co-advisor for Micheal Knox, Physiology Graduate Student, UAMS

August 2008-December 2008: Amy Ferry, PGY 791 Physiology Supervised Research class

January- May 2010: Carrie Silkman, Graduate student rotation, Rehabilitation Sciences Graduate Program, UK

January- May 2010: Margo Ubele, graduate student rotation (2 rotations), Integrative Biomedical Sciences graduate program, UK

August 2010-December 2010: Johannah Hoch, research rotation, Rehabilitation Sciences Graduate Program, UK

August 2011 – October 2011: Tyler Kirby, research rotation, Integrative Biomedical Sciences graduate program, UK

June – December 2014: Yuechen Zhu, research rotation, Biology graduate program, UK

### **Professional**

June - July 2002: Timothy McClure, Medical Student, UAMS

July 2007 - June 2008: Xiaoqin Wang, Medical Student, University of Kentucky

January 2014 – present: Eleni Maroudas, Medical Student, University of Kentucky, PSMRF fellow.

May-August 2015: Aman Shah, Medical Student University of Pikeville, College of Osteopathic Medicine, Summer Research fellowship

June 2015 – present: Christine Auberle, Medical Student, University of Kentucky, PSMRF fellow.

May-August 2016: Casey Potts, Medical Student University of Pikeville, College of Osteopathic Medicine, Summer Research fellowship

### **DPT research projects**

April 2007 - October 2007: Ellen Sutton and Jennifer Riley, Physical Therapy Research project

May 2007 - October 2008: Jeanine Owens and Charity Meyers, Physical Therapy Doctoral Research project.

October 2007 - October 2008: Matthew Shewmaker and Gordon Melton, Physical Therapy Doctoral Research project

November 2008 - March 2010: Ashley Noel, Kari Hart, Leann Klein, and Barbara Jozwiak, Physical Therapy Doctoral Research Project

August 2009 - May 2011: Ellen Magee, Physical Therapy Doctoral Research project.

May 2011 - May 2011: Ashley Greenman and Chad Ford, Physical Therapy Doctoral Research project.

August 2010 – May 2013: Autumn Edwards, Kirstin Distler, Amie Caple, and Cameron Fulcher, Physical Therapy Doctoral Research project.

July 2012 – May 2014: Jonathan Hobbs, Adam Powers, Physical Therapy Doctoral Research project.

July 2012 – May 2014: Sadie Fillmore, Beth-Anne Harris, Shannon Singleton, Physical Therapy Doctoral Research project.

May 2013 – May 2015: Valerie Gibbs, Physical Therapy Doctoral Research project.

May 2013 – May 2015: Kayla Kroll, Joshua Nagode, Michael Hopper, Physical Therapy Doctoral Research project.

May 2013 – May 2015: Sydney Rosser, Rachel Franey, Kenny Kimbal, Physical Therapy Doctoral Research project.

May 2013 – 2015: Sarah Gerichs, Kody Carpenter, Aaron High, Physical Therapy Doctoral Research project

May 2014- 2016: Morgan Lester, Sean Darrow, Physical Therapy Doctoral Research project

May 2014- 2016: Noel McCormick, Physical Therapy Doctoral Research project

May 2014- 2016: Kelsey Robinson, Thomas Rains, Terri Gilbert, Gena Howell, Physical Therapy Doctoral Research project  
May 2014- 2016: Leslie Roberge, Katherine Gross, Physical Therapy Doctoral Research project  
May 2014- 2016: Jorden Schroeder, Haley Kinney, co advisor with Leann Kerr, Physical Therapy Doctoral Research project  
May 2015-2017: Beth Sturgill, Chloe Isaacs, Physical Therapy Doctoral Research project  
May 2015-2017: Alyssa Antonicello, Tracy Farrow, Melissa Rankin, Physical Therapy Doctoral Research project  
May 2015-2017: Raquel Hegge, Heather Stewart, Physical Therapy Doctoral Research project  
May 2015-2017: Maddie White, Matt Soergel, Physical Therapy Doctoral Research project  
May 2015-2017: Nick Uhl, Derek Reid, Physical Therapy Doctoral Research project  
May 2015-2017: Bennett Gatto, Taylor Horricks, Martin Steltenpohl, Physical Therapy Doctoral Research project

#### **Chair Dissertation Committee**

Christine Waters, Div. Athletic Training, Dept Rehabilitation Sciences, University of Kentucky, 2010-2013  
Kyle Leshon, Dept. Rehabilitation Sciences, University of Kentucky, 2013-2015 (Co-chair)  
Elise Kearns, Dept. Rehabilitation Sciences, University of Kentucky, 2015-present  
Audrey Johnson, Dept. Rehabilitation Sciences, University of Kentucky, 2015-present

#### **Member Dissertation Committee (PhD):**

Nawal Shekhawat, Dept. Pharmacology and Toxicology, Univ Ark Med Sci, Little Rock AR, 2004-2006  
Rijin Xiao, Dept. Physiology and Biophysics, Univ Ark Med Sci, Little Rock, AR, 2005-2007  
Jorge Gamboa, Dept. Physiology, University of Kentucky, 2006-2009  
Stephanie Moore, Dept. Rehabilitation Sciences, University of Kentucky, 2010-2013  
Tyler Kirby, Dept. Physiology, University of Kentucky, 2012-2015  
Julie McLean, Dept. Physiology, University of Kentucky, 2013-2015  
Yuechen Zhu, Dept. Biology, University of Kentucky, 2014-present  
Adrienne Herrenbruck, Dept. Kinesiology and Health Promotion, University of Kentucky, 2015-present  
Paul Kline, Dept. Rehabilitation Sciences, University of Kentucky, 2015-present

#### **Thesis Committee**

Amy Ferry, Dept. Physiology (Master's thesis), University of Kentucky, 2008-2009.  
Christine Waters, Div. Athletic Training, (Master's thesis), University of Kentucky, 2009-2010  
Ben Barnes, Gaines Fellowship Thesis, University of Kentucky, 2010-2011.  
Emily Brownell, Div. Athletic Training, (Master's thesis), University of Kentucky, 2012-2013  
Margo Ubele, Molecular Medicine (Master's Thesis), University of Kentucky, 2012-2013  
Justin Werker, Molecular Medicine, (Master's thesis), University of Kentucky, 2013-2014  
Emily Hunt, Div. Athletic Training, (Master's thesis), University of Kentucky, 2015-2016  
Caitlin McPeters, Molecular Medicine (Master's thesis), University of Kentucky, 2015

#### **Dissertation Review (outside reviewer):**

Wan-Jung Alice Tsai, Department of Pharmaceutical Sciences, University at Buffalo, New York, 2007.  
Melissa Chambers, Department of Physiology, University of Kentucky, KY, 2008  
Eun Jin Lee, College of Nursing, University of Kentucky, 2010

#### **Postdoctoral Fellows:**

Rijin Xiao, Dept. Rehabilitation Sciences, College of Health Sciences, Univ. of Kentucky, 2007-2008  
Janna Jackson, Dept. Rehabilitation Sciences, College of Health Sciences, Univ. of Kentucky, 2011-2015  
Zana Majeed, Rehabilitation Sciences, College of Health Sciences, Univ. of Kentucky, August 2014-March 2015.

#### **Mentoring:**

- Serve as mentor through MentorNet, online mentoring service, 2010-present

- Faculty Mentor for Human Health Sciences students, College of Health Sciences, University of Kentucky, 2013-2015
- Faculty mentor for Rachel Hogg, assistant professor, Clinical Sciences, University of Kentucky, 2015-present

#### **Curriculum Development:**

- Development Aging Biology Track for Interdisciplinary Biomedical Sciences (IBS) Graduate Program, Univ Ark Med Sci, Little Rock AR (2003)
- Development: Journal Club on Aging; Dept. of Geriatrics, Univ Ark Med Sci, Little Rock, AR (2003)
- Development: Biology of Aging Graduate Course (2004)
- Development: Research Design PT867, DPT program, University of Kentucky (2008)
- Development: Specialty elective: Muscle Plasticity, PT686, University of Kentucky (2011)
- Development: Muscle Forum, RHB/PGY625, Center for Muscle Biology, University of Kentucky, (2011)
- Development: Muscle Biology HHS 402G (2014-15)

#### **Educational Committee Assignments**

- Course Director: Journal Club on Aging, 2003-2006
- Course Director: Biology of Aging Graduate Course, 2004-2006
- Chair: Aging Biology Track, 2005-2006
- Member IBS Graduate Program Steering Committee, 2005-2006
- Member admissions subcommittee IBS Graduate Program, 2005-2006
- Research Workgroup, Curriculum Committee PhD program in Rehabilitation Sciences, 2006- 2007
- Tracks Workgroup, Curriculum Committee PhD program in Rehabilitation Sciences, 2006-2007
- Genomics and Regenerative Medicine Committee, Division of Physical Therapy, 2013
- Curriculum Review Committee, Rehabilitation Sciences PhD Program, 2014
- Focus group DPT Research Projects, 2014-15

#### **Media Coverage**

Lab work featured in article in Lexington Herald Leader Sunday July 24<sup>th</sup>, 2011

Tom Eblen: University of Kentucky center studies science of activity, muscle health

<http://www.kentucky.com/2011/07/24/1821970/tom-eblen-university-of-kentucky.html#ixzz1bneVJFXt>

Undergraduate student, Aman Shah, was selected to present at the 2012 Posters-at-the-Capitol event, January 26, 2012 in Frankfort, KY. Covered in UKNow.

<http://uknow.uky.edu/content/uk-undergraduates-present-posters-capitol-0>

Mentioned in online article with Roger McCarter about his work as a gerontologist.

<http://www.geron.org/component/content/article/69-member-spotlight/1318-roger-j-m-mccarter>

APS Undergraduate Research Summer Fellowship awarded to Aman Shah, who will work in the laboratory of Esther Dupont-Versteegden during summer of 2012. Covered in KYNow.

<http://uknow.uky.edu/content/uk-college-health-sciences-awarded-two-aps-undergraduate-fellowships>

Fellowship to Gerontological Society of America announced:

<http://www.geron.org/About%20Us/press-room/Archived%20Press%20Releases/80-2012-press-releases/1336-the-gerontological-society-of-america-selects-2012-fellows>

Undergraduate student, Aman Shah, was selected to present at the 2013 Posters-at-the-Capitol event, February 21, 2012 in Frankfort, KY. Featured in UKNow.

<http://uknow.uky.edu/content/uk-undergraduates-present-research-posters-capitol>

Undergraduate Poster Award to Aman Shah mentioned with Mentors from American Physiological Society. March 2013

<http://www.the-aps.org/mm/Education/Undergraduate/Student-Awards-and-Events/Bruce-Awards/Awardees>



Aman Shah, Undergraduate student featured with poster at NCUR2013 meeting in La Crosse, Wisconsin. UKNow March 16, 2013

<http://uknow.uky.edu/content/guest-entry-2013-national-conference-undergraduate-research>

David S Bruce Award for Excellence in Undergraduate Research to Aman Shah mentioned with Mentors from American Physiological Society. April 2013

<http://www.the-aps.org/mm/Education/Undergraduate/Student-Awards-and-Events/Bruce-Awards/Awardees>

Featured in Connection magazine for work with undergraduate students. Winter 2014.

Mentioned in article about Massage in Mice with Dr. Timothy Butterfield: NATA News, p22, July 2014

<http://www.nata.org/NATAnews> (page 22).

Featured in announcements about outreach educational project (April 2015):

<http://uknow.uky.edu/content/uk-project-engages-next-generation-kentuckians-tackle-health-problems>

<http://www.kyforward.com/our-universities/2015/04/15/uk-project-engages-next-generation-of-kentuckians-to-tackle-health-problems/>

David S. Bruce Award for Excellence in Undergraduate Research to Jenae Brown mentioned with Mentors from American Physiological Society. April 2015

<http://www.the-aps.org/mm/Education/Undergraduate/Student-Awards-and-Events/Bruce-Awards/Awardees>

Featured in UKNow

<http://uknow.uky.edu/content/college-health-sciences-researcher-enjoys-serendipity-discovery>

Featured in KyForward

<http://www.kyforward.com/serendipity-of-discovery-researcher-uses-interest-in-movement-to-help-aged-retain-muscle-strength/>

### **Community Service**

Science Fair Judging, Millcreek Elementary School, November 2006

Science Fair Judging, Kentucky American Water Fayette County Science Fair, 2011 – 2014

See Blue STEM Camp 2014, moderator

Glendover Elementary School, Girls Science Club, presentation, April 22, 2015