Terence E. Ryan, Ph.D.

Curriculum Vitae

PERSONAL INFORMATION

Office Address:

Department of Applied Physiology & Kinesiology
Center for Exercise Science
College of Health and Human Performance
University of Florida
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EDUCATION

Postdoctoral Training in Mitochondrial and Molecular Biology — 2013-2017
East Carolina University — Greenville, NC
Mentors: Joseph McClung and Darrell Neufer

Ph.D., Kinesiology — 2010-2013
University of Georgia — Athens, GA
Mentor: Kevin McCully

M.S., Exercise Science — 2008-2010
Florida Atlantic University — Boca Raton, FL

B.S., Exercise Physiology — 2004-2008
Florida State University — Tallahassee, FL

PROFESSIONAL EXPERIENCE

Assistant Professor (Tenure Track) — 2018 – present
Department of Applied Physiology — Gainesville, FL
University of Florida

NIH Postdoctoral Fellow — 2015 – 2017
Department of Physiology — Greenville, NC
East Carolina Diabetes and Obesity Institute
East Carolina University

Postdoctoral Research Associate — 2013 – 2015
Department of Physiology — Greenville, NC
East Carolina Diabetes and Obesity Institute
East Carolina University

Graduate Research Assistant — 2010 – 2013
Department of Kinesiology — Athens, GA
University of Georgia

ADMINISTRATIVE EXPERIENCE

2015-17 President, Postdoctoral Association, East Carolina University
2013-14 Vice President, Postdoctoral Association, East Carolina University

PROFESSIONAL SOCIETIES

2014- American Heart Association
2011- American Physiological Society
2008- American College of Sports Medicine
2010- Southeast Chapter of the American College of Sports Medicine

HONORS AND AWARDS

2021 Cardiovascular Section New Investigator Award, American Physiological Society
2020 Excellence Award for Assistant Professors, University of Florida
2018 NIA/NIH Loan Repayment Award for Clinical Research
2018 Pepper Center Junior Scholar Award, University of Florida Claude D. Pepper Older Americans Independence Center
2016 Outstanding Publication of the Year, Office of Postdoctoral Affairs, East Carolina University
2016 Ruth L. Kirschstein National Service Research Award (NIH/NHLBI)
2015 Best Research Presentation by Postdoctoral Scholar, East Carolina University Research and Creative Achievement
2014 Outstanding Publication of the Year, Office of Postdoctoral Affairs, East Carolina University
2013 Doctoral Student Research Award, Southeast Chapter of the American College of Sports Medicine
2013 Graduate Student Travel Award, The Graduate School, University of Georgia
2012 Outstanding Teaching Assistant Award, University of Georgia
2011 Doctoral Student Research Award, Southeast Chapter of the American College of Sports Medicine
2009 Academic Grant, Florida Atlantic University

BIBLIOGRAPHY

Refereed Journal Articles:

Citation statistics (Google Scholar): H-index = 34, total citations = 2984

***Corresponding Author**

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34. Chung S, Rosenberry R, **Ryan TE**, Munson M, Dombrowsky T, Park S, Nasirian A, Haykowsky MJ, Nelson MD. Near-infrared spectroscopy detects age-related differences in skeletal muscle oxidative function: Promising implications for geroscience. *Physiological Reports* 6(e13588), 2018.

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19. **Ryan TE,** Schmidt CA, Green TD, Brown DA, Neufer PD, McClung JM. Mitochondrial regulation of the muscle microenvironment in critical limb ischemia. *Frontiers in Physiology* 6:336, 2015.

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8. **Ryan TE**, Brizendine JT, Backus D, McCully KK. Electrically-induced resistance training in individuals with motor complete spinal injury. *Archives of Physical Medicine and Rehabilitation* 94: 2166-2173, 2013.

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5. McCully KK, Stoddard SN, Reynolds MA, **Ryan TE**. Skeletal muscle oxidative metabolism during varying types and intensities of exercise. (In Review)

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3. Yamaguchi DJ, Fisher-Wellman KH, Terwilliger ZS, Kolasa M, Pentakota A, Zeczycki TN, Scali ST, Berceli SA, O'Malley KA, Karnekar R, Brophy P, Green TD, Myoung M, Spangenburg EE, Amorese AJ, Annex BH, Kim K, **Ryan TE**, McClung JM. Sex differences in the transcriptomic and proteomic profiles of chronic limb threatening ischemia patient skeletal muscle. (In Review at *Frontiers in Cardiovascular Medicine*)

2. Travis SK, Skinner SK, Thome T, Fitzgerald LF, Cohen MS, Wolan DW, Toth MJ, **Ryan TE**, Hepple RT. Doxorubicin-induced skeletal muscle atrophy is mediated by mitochondrial permeability transition. (In Review at *Cells*)

1. Yamaguchi DJ, **Ryan TE**, Goldberg EJ, Schmidt CA, Terwilliger ZS, Karnekar R, Brophy P, Green TD, Zeczycki TN, Mac Gabhann F, Annex BH, McClung JM. Revascularization procedures that fail to prevent amputation alter the transcriptomic profile of limb skeletal muscle from chronic limb threatening ischemia patients. (*In Revision at Journal of Vascular Research*)

Abstracts:

78. Dong G, Moparthy C, Thome T, Kim K, Yue F, **Ryan TE***. scAAV-IGF1 therapy is more efficacious in female mice compared to male mice with chronic limb threatening ischemia. *Advances in Skeletal Muscle Biology and Disease*. March 15-17, 2023, University of Florida, Gainesville, FL

77. Stone L, Thome T, Vugman N, **Ryan TE***. Aryl hydrocarbon receptor activation via indoxyl sulfate has deleterious effects in cultured muscle cells. *Advances in Skeletal Muscle Biology and Disease*. March 15-17, 2023, University of Florida, Gainesville, FL

76. Vugman N, Thome T, Stone L, **Ryan TE***. Characterization of Fam136a, a mitochondrial gene with unknown function, in skeletal muscle cells. *Advances in Skeletal Muscle Biology and Disease*. March 15-17, 2023, University of Florida, Gainesville, FL

75. Kim K, Anderson EM, Fazzone B, O'Malley KA, Tan J, Thome T, Yang Q, Berceli SA, **Ryan TE**, Scali ST. The impact of arteriovenous fistula creation on muscle mitochondrial energetics: a preliminary analysis in end-stage kidney disease patients. *Advances in Skeletal Muscle Biology and Disease*. March 15-17, 2023, University of Florida, Gainesville, FL

74. Lackey J, Fitzgerald LF, Moussa A, Shah SV, Castellanos AM, Thome T, Yang Q, Hepple RT, **Ryan TE***. Chronic Aryl Hydrocarbon Receptor Activation Impairs Muscle Mitochondrial Energetics with Tobacco Smoking. *Advances in Skeletal Muscle Biology and Disease*. March 15-17, 2023, University of Florida, Gainesville, FL

73. Moparthy C, Dong G, Thome T, Kim K, Yue F, **Ryan TE***. Optimizing the delivery of adeno-associated virus to the critically ischemic mouse limb. *Advances in Skeletal Muscle Biology and Disease*. March 15-17, 2023, University of Florida, Gainesville, FL

72. Kim K, Cort T, Kunz E, Moerschel J, Palzkill VR, Dong G, Moparthy C, Anderson EM, Fazzone B, O'Malley KA, Berceli SA, **Ryan TE**, Scali ST. Impact of N-acetylcysteine supplementation on skeletal muscle myopathy in a mouse model of access-related hand dysfunction. *Advances in Skeletal Muscle Biology and Disease*. March 15-17, 2023, University of Florida, Gainesville, FL

71. Hetherington-Rauth M, Johnson E, Parimi N, Langsetmo L, Hoffman AR, Feige J, Deuquet J, Migliavacca E, Hepple RT, **Ryan TE**, Ferrucci L, Orwoll ES, Cawthon PM. Nutrient metabolites associated with low D3Cr muscle mass, strength, and physical performance in older men. *ACSM Annual Meeting & World Congresses*. May 30 – June 2, 2023, Denver, CO.

70. Zhong R, Rua M, Brandt Z, Kim N, Thome T, Kim K, Cort TA, Kunz EM, **Ryan TE**, Wei-LaPierre L. Attenuating Skeletal Muscle Mitochondrial Ca2+ Uptake preserves motor and muscle function in Amyotrophic Lateral Sclerosis hSOD1G93A mice. *Advances in Skeletal Muscle Biology and Disease*. March 15-17, 2023, University of Florida, Gainesville, FL

69. Kim K, Thome T, Salyers ZR, Yang Q, Stone L, Vugman N, Anderson EM, Fazzone B, Schmidt EA, O'Malley KA, Berceli SA, Scali ST, **Ryan TE*.** Impact of Chronic Kidney Disease on Skeletal Muscle Strength and Mitochondrial Function in Peripheral Arterial Disease Patients. *Advances in Skeletal Muscle Biology and Disease*. March 15-17, 2023, University of Florida, Gainesville, FL

68. Thome T, Vugman N, Stone L, **Ryan TE***. Chronic Activation of the Aryl Hydrocarbon Receptor Promotes Skeletal Muscle Mitochondriopathy in Chronic Kidney Disease. *Advances in Skeletal Muscle Biology and Disease*. March 15-17, 2023, University of Florida, Gainesville, FL

67. Fitzgerald LF, Skinner SK, **Ryan TE**, Hepple RT. Mitochondrial permeability transition is required for chronic aryl hydrocarbon receptor activation-mediated skeletal muscle atrophy. *American Physiology Summit*, April 20-23, 2023, Long Beach, CA

66. Kim K, Thome T, Salyers ZR, Yang Q, Stone L, Vugman N, Anderson EM, Fazzone B, Schmidt EA, O'Malley KA, Berceli SA, Scali ST, **Ryan TE*.** Chronic kidney disease exacerbates ischemic leg myopathy in patients with peripheral artery disease. *American Physiology Summit*, April 20-23, 2023, Long Beach, CA

65. Kim K, Cort TA, Kunz EM, Moerschel J, Palzkill VR, Dong G, Moparthy C, Anderson EM, Fazzone B, O'Malley KA, Berceli SA, Scali ST, **Ryan TE***. Impact of N-acetylcysteine supplementation on skeletal muscle myopathy in a mouse model of access-related hand dysfunction. *American Physiology Summit*, April 20-23, 2023, Long Beach, CA

64. Palzkill VR, Thome T, Murillo AL, Khattri RB, and **Ryan TE***. 2022. Increasing plasma L-kynurenine impairs mitochondrial oxidative phosphorylation prior to the development of atrophy in murine skeletal muscle. *ACSM Integrative Physiology of Exercise Conference.* September 21-24, 2022, Baltimore, MD

63. Thome T, Vugman N, Stone L, and **Ryan TE***. 2022. The role of the aryl hydrocarbon receptor in uremic toxicity of skeletal muscle. *ACSM Integrative Physiology of Exercise Conference.* September 21-24, 2022, Baltimore, MD

62. Thome T, Lackey J, Vugman N, Stone L, and **Ryan TE***. 2022. Chronic aryl hydrocarbon receptor activation as a novel regulator of skeletal muscle metabolism. *FASEB Science Research Conference. The Molecular Metabolism Conference: From Cell Biology to Systems Physiology*, August 7-12, 2022, Nova Scotia, Canada

61. Khattri RB, Batra A, Matheny M, Hart C, Henley-Beasley S, White Z, Hammers D, Zeng H, **Ryan TE**, Barton EB, Bernatchez P, Walter G. Magenetic resonance imaging and spectroscopy quantification of skeletal muscle lipid infiltration in a model of Duchenne Muscular Dystrophy with extensive fatty tissue replacement. *New Directions in Biology and Disease of Skeletal Muscle,* June 20-23, Fort Lauderdale, Florida.

60. Kim K, Anderson EM, Fazzone B, Harland KC, Hu Q, Khattri RB, Salyers ZR, Palzkill ZR, Cort TA, O'Malley KA, Berceli SA, Scali ST, **Ryan TE***. Assessment of hindlimb myopathy and mitochondrial bioenergetics in a unique mouse model of access-related hand dysfunction. *Experimental Biology, April 2-5, 2022, Philadelphia, PA.*

59. Anderson EM, Kim K, Fazzone BJ, Harland KC, Hu Q, Neal D, O'Malley KA, Berceli SA, **Ryan TE**, Scali ST. Influence of renal insufficiency on mitochondrial bioenergetics and limb dysfunction in a novel murine iliac arteriovenous fistula model. *Southern Association for Vascular Surgery 45th Annual Meeting, January 19-22, 2022, Manalapan, Florida.*

58. Laitano OL, **Ryan TE**, Efron P, Clanton TL. Sepsis induces epigenetic modifications in skeletal muscle stem cell DNA. 44th *Annual Conference on Shock, October 12-15, 2021; Portland, Oregon.*

57. Murray KO, Gambino B, Robinson GP, Thome T, Salyers ZR, Laitano O, **Ryan TE**, Clanton TL. Exertional heat stroke causes long-term satellite cell dysfunction and delayed muscle repair. *Experimental Biology, April 27-30, 2021*

56. Burke SK, **Ryan TE**, Hepple RT. Mitochondrial permeability transition induces skeletal muscle atrophy in single living myofibers. *Experimental Biology, April 27-30, 2021*

55. Kim K, Thome T, Salyers ZR, O'Malley K, Berceli SA, Scali ST, **Ryan TE**. Skeletal muscle proteome and mitochondrial health distinguishes the failing and salvageable ischemic limb. *Experimental Biology, April 27-30, 2021*

54. Thome T, Kumar RA, Coleman MD, Burke SS, Salyers ZR, Scali ST, Ferreira LF, **Ryan TE**. Chronic kidney disease causes skeletal muscle mitochondrial myopathy through disruption of the electron transport system. *Experimental Biology, April 4-7, 2020; San Diego, California.*

53. Fitzgerald LF, Thome T, Burke SK, Salyers ZR, **Ryan TE**, Hepple RT. Tobacco smoke extract causes mitochondrial dysfunction associated with myotube atrophy. *Experimental Biology, April 4-7, 2020; San Diego, California.*

52. Salyers ZR, Thome T, Coleman M, **Ryan TE**. The uremic toxin indoxyl sulfate impairs angiogenesis through aryl hydrocarbon receptor activation. *Experimental Biology, April 4-7, 2020; San Diego, California.*

51. Salyers ZR, Thome T, Le D, Coleman M, **Ryan TE**. Skeletal muscle-specific PFKFB3 expression rescues ischemic myopathy by enhancing glycolytic flux. *Experimental Biology, April 4-7, 2020; San Diego, California.*

50. Burke SS, Thome T, **Ryan TE**, Hepple RT. Mitochondrial permeability transition induces atrophy in C2C12 myotubes. *Experimental Biology, April 4-7, 2020; San Diego, California.*

49. Goldberg EJ, **Ryan TE**, Schmidt CA, Tarpey MD, Amorese AJ, Yamaguchi DJ, Inigo M, Karnekar R, Brophy P, Green TD, Spangenburg EE, McClung JM. PFKFB3 mediated metabolic flexibility rescues ischemic limb myopathy in mice. *2019 NHLBI Mitochondrial Biology Symposium, September 26-27, 2019; Bethesda, Maryland.*

48. Gray SE, Omalley KA, Berru FN, Thome T, Omalley KA, Berceli SA, **Ryan TE**, Scali ST. Gait Phenotype and Skeletal Muscle Perturbations in a Novel Renal Dysfunction Murine Hind Limb Ischemia Model. *Society for Vascular Surgery Annual Meeting, June 12-15, 2019; National Harbor, Maryland.*

47. Thome T, Berru F, **Ryan TE**. PGC-1/ERR-Induced Regulator in muscle (PERM1) increases mitochondrial respiratory capacity in culture muscle cells. *American College of Sports Medicine (ACSM) Annual Meeting, May 28 – June 1, 2019; Orlando, Florida.*

46. Thome T, Berru F, Hahn D, Kumar RA, Ferreira LF, **Ryan TE**. Uremic toxins decrease skeletal muscle mitochondrial energy transfer through disruption of the electron transport system. *Experimental Biology, April 6-9, 2019; Orlando, Florida.*

45. Berru F, Gray SE, Thome T, Le D, Omalley KA, Berceli SA, Scali ST, **Ryan TE**. Renal dysfunction exacerbates ischemic muscle injury in mice subjected to hindlimb ischemia. *Experimental Biology, April 6-9, 2019; Orlando, Florida.*

44. Hahn D, Kumar RA, **Ryan TE**, Ferreira LF. Mitochondrial Respiration and H_2O_2 Emission in Saponin-permeabilized Murine Diaphragm Fibers: Optimization of Fiber Separation and Comparison to Limb Muscle. *Experimental Biology, April 6-9, 2019; Orlando, Florida.*

43. Johnson JM, Heden TD, Ferrara PJ, Eshima H, Verkerke ARP, Siripoksup P, Lin CT, **Ryan TE**, Reidy PT, Maschek JA, Cox JE, Vance JE, Drummond MJ, Neufer PD, Funai K. Disuse vs Exercise: Phosphatidylethanolamine in skeletal muscle mitochondrial adaptations. *Keystone Symposium: Mitochondrial Biology in Heart and Skeletal Muscle, January 13-17, 2019; Keystone, Colorado.*

42. McGee JE, **Ryan TE**, Dubis GS, Barefoot SG, Brophy PM, Swift DL. Arterial stiffness and mitochondrial oxidative capacity in obese African Americans. *American College of Sports Medicine Annual Meeting, May 29 – June 2, 2018; Minneapolis, Minnesota.*

41. Powers SA, **Ryan TE**, Pak E, McClung JM, Hannan JL. Chronic high fat diet increases diuresis and is associated with detrusor oxidative stress and impaired mitochondrial respiration. *American Urological Association Annual Meeting, May 12-16, 2017; Boston, Massachusetts.*

40. Schmidt CA, **Ryan TE**, Green TD, Karnekar R, McCord TJ, Southerland KW, Venkatraman TN, Lascola CD, Keum S, Marchuk DA, Spangenburg EE, Dokun A, Annex BH, Kontos CD, McClung JM. A BAG3 coding variant in mice determines susceptibility to ischemic limb muscle myopathy. *Keystone Symposium: Angiogenesis, May 4-7, 2017; Santa Fe, New Mexico.*

39. **Ryan TE**, Yamaguchi DJ, Schmidt CA, Green TD, Torres MJ, Neufer PD, Spangenburg EE, McClung JM. Muscle cell mitochondrial respiratory dysfunction is a unique pathologic link between strain dependent hindlimb ischemia and human critical limb

ischemia myopathies. *Keystone Symposium: Angiogenesis, May 4-7, 2017; Santa Fe, New Mexico.*

38. Powers SA, **Ryan TE**, Odom MR, McClung JM, Hannan JL. Mitochondrial mutations contribute to increased voiding frequency and impaired cholinergic contraction in a model of premature aging. *American Urological Association Annual Meeting, May 12-16, 2017; Boston, Massachusetts.*

37. Verkerke ARP, Ferrara PJ, Lin CT, Heden TD, **Ryan TE**, Wentzler EJ, Balotti AH, Neufer PD, Funai K. Muscle phospholipid methylation modulates SERCA energy efficiency and alters susceptibility for obesity. *Keystone Symposium: Diabetes/Obesity and Adipose Tissue Biology, January 22-26, 2017; Keystone, Colorado.*

36. Lin CT, Gilliam LA, **Ryan TE**, Torres MJ, Smith CD, Brophy PM, Clark AH, Hickner RC, Neufer PD. Changes in energy state acutely alter redox state and insulin sensitivity in healthy humans. *APS Intersociety Meeting: The Integrative Biology of Exercise VII, November 2-4,2016; Phoenix, Arizona.*

35. Morad SAF, **Ryan TE**, Barth BM, Claxton DF, Kester M, Loughran TP, Cabot MC. Ceramide-antiestrogen regimen targets bioenergetic elements in acute myelogenous leukemia. *Molecular Cancer Therapeutics 14(12 Supplement 2): B17-B17, November 2015.*

34. Verkerke A, Ferrara P, Lin CT, Heden T, **Ryan TE**, Wentzler E, Balotti A, Neufer PD, Funai K. Absence of phosphatidylethanolamine methylation increases skeletal muscle energy expenditure and prevents obesity. *APS Intersociety Meeting: The Integrative Biology of Exercise VII, November 2-4,2016; Phoenix, Arizona.*

33. Torres MJ, Reese LR, Smith C, Pennington E, **Ryan TE**, Shaikh SR, Neufer PD. Estrogen Treatment Restores Muscle Mitochondrial Function and Redox Homeostasis, reversing the Pro-Diabetogenic State induced by Ovariectomy. *The FASEB Journal* **(30)** 1, 1247.1-1247.1, 2016.

32. Schmidt CA, **Ryan TE**, Lin CT, Inigo MMR, Green TD, Brault JJ, Spangenburg EE, McClung JM. Diminished force production and mitochondrial respiration are strain-dependent myopathies of subacute limb ischemia. *NHLBI/NIDDK Mitochondrial Biology Symposium, May 18-19, 2016; Bethesda, Maryland.*

31. **Ryan TE**, Schmidt CA, Green TD, Spangenburg EE, Neufer PD, McClung JM. Targeted expression of catalase to mitochondria protects against ischemic myopathy in high fat fed mice. *NHLBI/NIDDK Mitochondrial Biology Symposium, May 18-19, 2016; Bethesda, Maryland.*

30. Reese LR, **Ryan TE**, Torres MJ, Neufer PD. Acute reversal of high fat diet induced insulin resistance is accompanied by a restoration of redox status in skeletal muscle. *Experimental Biology, March 28-April 1, 2015; Boston, Massachusetts.*

29. Morad SAF, Kester M, Loughran TP, **Ryan TE**, Zecycki TN, Davis T, Cabot MC. Adjuvant tamoxifen improves effectiveness of ceramide-centric therapy in acute myelogenous leukemia. *International Ceramide Conference/Sphingolipid Club, May 8, 2015; Izmir, Turkey.*

28. Lark DS, **Ryan TE**, Torres MJ, Lin CT, Anderson EJ, Neufer PD. Demand-driven enhancement of mitochondrial oxidative phosphorylation efficiency in permeabilized

myofibers. *Diabetes Day at Vanderbilt University Medical Center, December 10, 2014; Nashville, Tennessee.*

27. **Ryan TE**, Reese LR, Torres MJ, Lin CT, Neufer PD. Atrovastatin decreases skeletal muscle mitochondrial respiration and calcium retention in overweight adult humans. *Keystone Symposium: Diabetes and Metabolic Dysfunction, January 27-February 4, 2015; Santa Fe, New Mexico.*

26. Brown DA, **Ryan TE**, Schmidt CA, Alleman RJ, Tsang AM, Green TD, Neufer PD, McClung JM. The Mitochondrial Targeted Peptide MTP-131 Restores Limb Perfusion and Reduces Pathology in Ischemic Limb Muscle of Genetically Susceptible Mice. *Keystone Symposium: Mitochondrial, Metabolism, and Heart Failure, January 27-February 4, 2015; Santa Fe, New Mexico.*

25. Morad SAF, Bridges LC, Gilliam LAA, **Ryan TE**, Cabot MC. Tamoxifen improves efficacy of ceramide-centric theraputics in human melanoma by downregulating survival signaling and countering invasion. *The Workshop on Molecular Medicine of Sphingolipids, October 12-17, 2014; Kloster Banz, Germany.*

24. Young HJ, Brizendine JT, Erickson ML, **Ryan TE**, Li X, Murrow JR, McCully KK. The effect of peripheral arterial disease on arterial flow kinetics. *Annual Meeting of the American College of Sports Medicine; May 27-31, 2014; Orlando, Florida.*

23. Southern WM, **Ryan TE**, Kepple K, Nilsson KR, McCully KK. Skeletal muscle adaptations from endurance exercise training are blunted in patients with chronic heart failure. *Annual Meeting of the American College of Sports Medicine; May 27-31, 2014; Orlando, Florida.*

22. **Ryan TE**, Lin CT, Brophy PM, Hickner RC, McCully KK, Neufer PD. In vivo measurements of mitochondrial respiratory capacity in skeletal muscle. *Advances in Skeletal Muscle Biology, University of Florida; March 5-7, 2014; Gainesville, Florida.*

21. Lin CT, Gilliam LA, Brophy PM, Clark AH, **Ryan TE**, Hickner RC, Neufer PD. Changes in energy state acutely alter insulin sensitivity in healthy humans. *Metabolic Origins of Disease, Sanford-Burnham Institute; March 3-5, 2014; Orlando, Florida.*

20. **Ryan TE**, Lin CT, Brophy PM, Hickner RC, McCully KK, Neufer PD. In vivo measurements of mitochondrial respiratory capacity in skeletal muscle. *Metabolic Origins of Disease, Sanford-Burnham Institute; March 3-5, 2014; Orlando, Florida.*

19. Gist NH, Freese EC, **Ryan TE**, Cureton KJ. Physiological and performance effects of low-volume, high-intensity whole-body calisthenics on Army ROTC cadets. *Annual Meeting of the American College of Sports Medicine; May 27-31, 2014; Orlando, Florida.*

18. Southern WM, **Ryan TE**, Kepple K, Hsu BC, Nilsson KR, McCully KK. Impaired skeletal muscle mitochondrial and vascular function in people with heart failure. *Southeast Regional Meeting of the American College of Sports Medicine; February 13-15, 2014; Greenville, South Carolina.*

17. Brizendine JT, **Ryan TE**, Larson RD, McCully KK. Oxidative capacity in trained cyclists with near infrared spectroscopy. *Annual Meeting of the American College of Sports Medicine; May 28 – June 1, 2013; Indianapolis, Indiana.*

16. Young HJ, Brizendine JT, Erickson ML, **Ryan TE**, Li X, Murrow JR, McCully KK. Dispersion of arterial blood flow and severity of peripheral arterial disease. *Annual Meeting of the American College of Sports Medicine; May 28 – June 1, 2013; Indianapolis, Indiana.*

15. Erickson ML, **Ryan TE**, Young HJ, McCully KK. Case Report: Mitochondrial responses after endurance electrical stimulation training in spinal cord injury. *Annual Meeting of the American College of Sports Medicine; May 28 – June 1, 2013; Indianapolis, Indiana.*

14. **Ryan TE**, Brizendine JT, McCully KK. A Comparison of exercise type and intensity on the noninvasive assessment of skeletal muscle mitochondrial function using near infrared spectroscopy. *Annual Meeting of the American College of Sports Medicine; May 28 – June 1, 2013; Indianapolis, Indiana.*

13. Talati KR, Dhillon PK, **Ryan TE**, McCully KK. Effects of electrical stimulation intensity on near-infrared spectroscopy measurements of oxygen consumption and mitochondrial capacity. *Southeast Regional Meeting of the American College of Sports Medicine; February 14-16, 2013; Greenville, South Carolina.*

12. **Ryan TE**, Erickson ML, Stoddard SN, Chavez J, Verma A, McCully KK. The reproducibility of 31P MRS and NIRS methods to evaluate skeletal muscle mitochondrial function. *Southeast Regional Meeting of the American College of Sports Medicine; February 14-16, 2012; Greenville, South Carolina.*

11. Erickson ML, **Ryan TE**, Young HJ, McCully KK. Case Report: Mitochondrial responses after endurance electrical stimulation training in spinal cord injury. *Southeast Regional Meeting of the American College of Sports Medicine; February 14-16, 2013; Greenville, South Carolina.*

10. Brizendine JT, **Ryan TE**, Erickson ML, Chavez J, Verma A, McCully KK. A non-invasive method to evaluate mitochondrial function in human skeletal muscle appropriate for clinical and research trials. *GABIO; October 3-4, 2012; Atlanta, Georgia.*

9. **Ryan TE**, Brizendine JT, Young HJ, Erickson ML, McCully KK. Skeletal muscle metabolism and glucose tolerance after spinal cord injury: influence of intramuscular fat and injury duration. *Annual Meeting of the American College of Sports Medicine; May 29 – June 2, 2012; San Francisco, California.*

8. Brizendine JT, **Ryan TE**, Erickson ML, McCully KK. Improvements in electrical stimulation resistance training in men and women with complete spinal cord injury. *Annual Meeting of the American College of Sports Medicine; May 29 – June 2, 2012; San Francisco, California.*

7. Erickson ML, **Ryan TE**, Brizendine JT, Young HJ, McCully KK. Measuring skeletal muscle metabolism with near-infrared spectroscopy. *Annual Meeting of the American College of Sports Medicine; May 29 – June 2, 2012; San Francisco, California.*

6. **Ryan TE**, Brizendine JT, Erickson ME, Young HJ, McCully KK. Skeletal muscle metabolism and glucose tolerance after spinal cord injury: Influence of intramuscular fat and injury duration. *Southeast Regional Meeting of the American College of Sports Medicine; February 10, 2012; Jacksonville, Florida.*

5. Young HJ, Brizendine JT, Erickson ML, **Ryan TE**, Murrow JR, McCully KK. The effect of peripheral arterial disease on variability of velocity and time course of reactive

hyperemia. *Southeast Regional Meeting of the American College of Sports Medicine; February 10, 2012; Jacksonville, Florida.*

4. Young HJ, Brizendine JT, Erickson ML, **Ryan TE**, Murrow JR, McCully KK. Velocity profile of arterial blood flow and severity of peripheral arterial disease. *The 5th Asia-Pacific Conference on Exercise and Sports Science; Shanghai University of Sport; November 2-5, 2011; Shanghai, China.*

3. **Ryan TE**, McCully KK, Zhao Q. Effects of four months of electrical stimulation-induced resistance training on paralyzed muscle. *Southeast Regional Meeting of the American College of Sports Medicine; February 14, 2011; Greenville, South Carolina.*

2. **Ryan TE**, McCully KK, Zhao Q. The effects of electrical stimulation-induced resistance training on paralyzed muscle. *Annual Meeting of the American College of Sports Medicine; May 31 – June 4, 2011; Denver, Colorado.*

1. Brizendine JT, **Ryan TE**, Erickson ME, Young HJ, Backus D, Tansey K, et al. Home-based electrical stimulation training in persons with complete paraplegia. *Shepherd Center Research Day; November 10, 2011; Atlanta, Georgia.*

RESEARCH SUPPORT

Active Research Support:

- Co-Inv. ROS scavenging nanoparticles for mitigating oxidative stress in osteoarthritis. R01 AR080687. PI: Blanka Sharma, Ph.D. $2,067,312. Effort = 8%. 2023-2028.

- Co-Inv. Using mitochondrial Ca^{2+} uptake as a therapeutic target for ALS. R01 NS127858. PI: Lan Wei-Lapierre, Ph.D. $1,848,815. Effort: 10%. 2023-2027.

- PI. Linking kynurenine accumulation and the AHR pathway to exacerbated aging. R01 AG076490. $2,556,499. Effort: 25%. 2022-2027.

- Mentor. Mechanisms linking uremic toxicity to hand dysfunction following arteriovenous fistula placement. AHA POST903198. PI: Dr. Kyoungrae Kim. Dr. Ryan is primary mentor. $145,020. 2022-2023.

- Co-Inv. Establishing the impact of e-cigarette exposure on skeletal muscle function in peripheral arterial disease. James and Esther King Biomedical Research Program, Florida Dept. of Health Grant #23K04. PI: Scott T. Robinson, M.D., Ph.D. Effort: 10%. 2023-2026.

- Mentor. Chronic aryl hydrocarbon receptor activation and skeletal myopathy in chronic kidney disease. F31 DK128920. PI: Trace Thome. Dr. Ryan is primary mentor. $127,201. 2021-2024.

- Co-Mentor. Relevance of mitochondrial permeability transition in tobacco-smoke toxicity in skeletal muscle. AHA POST836216. PI: Dr. Liam Fitzgerald. Dr. Ryan is co-primary mentor. $136,756. 2021-2022.

- PI. Role of the aryl hydrocarbon receptor in tobacco smoke-induced skeletal muscle atrophy. 20K05 – James and Esther King Biomedical Research Program, Florida Dept. of Health. $626,710. Effort: 10%. 2020-2023.

- PI. Molecular mechanisms regulating peripheral arterial disease pathobiology in chronic kidney disease. R01 HL149704. $3,017,785. Effort: 23%. 2019-2024.

- Co-Inv. Impaired mitochondrial energetics is a driver of hemodialysis access related hand dysfunction. R01 HL148597. $2,699,426. Ryan portion = $155,000 direct costs per year. Effort = 15%. 2019-2024.

Completed Research Support:

- Co-Inv. Mitochondrial permeability transition in aging muscle. R56 AG066758. PI: Russ Hepple, Ph.D. $312,625. Effort: 10%. 2021-2023.

- Co-Inv. Using mitochondrial Ca^{2+} uptake as a therapeutic target for ALS. R56 NS117429. PI: Lan Wei-Lapierre, Ph.D. $511,505. Effort: 5%. 2021-2023.

- Co-Mentor. Relevance of mitochondrial permeability transition in tobacco-smoke toxicity in skeletal muscle. AHA POST836216. PI: Dr. Liam Fitzgerald. Dr. Ryan is co-primary mentor. $136,756. 2021-2022.

- PI. Role of PFKFB3 in peripheral artery disease. AHA 18CDA34110044. $231,000. Effort = 25%. 2018-2021.

- Co-Inv. A new understanding of muscle atrophy in neuromuscular disease. UF Office of Research. $81,000. Effort: 5%. 2020-2022.

- PI. Mechanisms of muscle dysfunction in chronic kidney disease. UF Office of Research. $83,409. Effort = 5%. 2019-2021.

- PI. Impact of skeletal muscle and stem cell mitochondrial dysfunction on outcomes from surgical intervention in patients with critical limb ischemia. Claude D. Pepper Center Junior Scholar Grant. $50,000. Effort = 5%. 2018-2020.

- Co-Inv. Effects of exercise training intensity on fitness and insulin sensitivity in African Americans. R03 DK105297. $553,125. Effort = 5%. 2017-2019.

- Consultant. UCSD Sedentary Behavior Program Project - Sedentary Behavior Interrupted: Acute, medium, and long-term effects on biomarkers of healthy aging, physical function, and mortality. P01 AG052352. $3,000 per year. 2017-2019.

- Co-Inv. Whole transcriptome sequencing to identify novel targets for critical limb ischemia therapy. Brody Brothers Endowment Seed Grant. $40,000. Effort = 0%. 2016-2017.

- PI. The role of skeletal muscle mitochondria in peripheral arterial disease. F32 HL129632. $99,056. Effort: 100%. 2015-2017.

- PI. Noninvasive measurement of skeletal muscle mitochondrial function using near infrared spectroscopy. University of Georgia Research Foundation. $5,000. 2012-2013.

REVIEWING ACTIVITIES

Grant Reviewer:

- Ad hoc reviewer for NIH Study Section: Vascular Cell and Molecular Biology (VCMB), June 25, 2020
- Congressional Directed Medical Research Programs, Department of Defense, 2020 (13 grants)
- Collaborative Initiative Grant Program, University of Nebraska, RFA 2019-2020
- ZRD1 IMMA-G (01): VA Merit Grant Review Panel: Immunology & Dermatology A (IMMA), November 24, 2020
- American Heart Association, Fellowship Reviewer, Basic Cell-Regenerative Cell Biology 2020-2023
- American Heart Association, Career Development Award Reviewer, Molecular Signaling and Cell Transport 2021
- ZRD1 IMMA-G (01): VA Merit Grant Review Panel: Immunology & Dermatology A (IMMA), May 19, 2021
- Medical Research Council, United Kingdom Research and Innovation, May 17, 2021
- Congressional Directed Medical Research Programs, Department of Defense, 2021 (14 grants)
- American Heart Association, Career Development Award Reviewer, Molecular Signaling and Cell Transport 2022
- ZRD1 IMMA-G (01): VA Merit Grant Review Panel: Immunology & Dermatology A (IMMA), May 24, 2022
- Medical Research Council, United Kingdom Research and Innovation, March 2023.

Invited Peer Reviewer (2012-Present)

- Journal of Applied Physiology
- Clinical Science
- American Journal of Physiology: Regulatory, Integrative, and Comparative Physiology
- Topics in Spinal Cord Injury Rehabilitation

- Muscle and Nerve
- Journal of Visualized Experiments
- PLOS One
- Medicine and Science in Sports and Exercise
- International Journal of Sports Medicine
- Acta Physiologica
- Experimental Physiology
- Heart Failure Reviews
- Microvascular Research
- Frontiers in Physiology
- Journal of Physiology
- American Journal of Physiology: Heart and Circulatory Physiology
- American Journal of Cardiovascular Drugs
- American Journal of Physiology: Endocrinology and Metabolism
- Journal of Vascular Surgery
- American Journal of Physiology: Cell Physiology
- FASEB Journal
- Journal of Gerontology: Biological Sciences
- Applied Physiology, Nutrition, and Metabolism
- Kidney International
- Journal of the American Society of Nephrology
- Oxidative Medicine and Cellular Longevity
- Diabetologia
- Exercise and Sport Sciences Reviews
- Clinical and Translational Medicine
- JCI Insight
- Journal of the American Heart Association
- Metabolism
- Redox Biology
- Nature Communications
- Circulation
- Journal of Cachexia, Sarcopenia, and Muscle
- BBA – Bioenergetics
- Communications Biology
- The American Journal of Pathology

TEACHING EXPERIENCE

University of Georgia – Department of Kinesiology

- KINS 8990 Skeletal Muscle Bioenergetics (Oxidative Phosphorylation Section, Spring 2013)
- KINS 3700 Applied Exercise Physiology (Full Undergraduate Lecture course, Spring 2012)
- KINS 6690 Neuromuscular Physiology (Muscle Contraction and Energetics Sections, Fall 2012)
- PHYS 6510 Theory and Techniques in MRI (Skeletal Muscle Section, Fall 2011)
- KINS 4630 Exercise Physiology Laboratory (Fall 2010, Spring 2011)
- KINS 4630 Advanced Exercise Physiology (Fall 2011)

- KINS 4690 Ion Channels and Electrophysiology (Fall 2011)
- KINS 4630 Health and Wellness after Spinal Cord Injury (Guest Lecture; Graduate course; Fall 2011)

East Carolina University – Department of Physiology

- PHLY7704** (Physiological Proteogenomics) Muscle function and contraction (Spring 2017)
- PHLY7704** (Physiological Proteogenomics) Mitochondria (Spring 2017)

**Team taught course

University of Florida – Department of Applied Physiology and Kinesiology

- APK4112 - *Advanced Exercise Physiology*
  - Fall 2018 (51 undergraduate students)
  - Spring 2019 (41 undergraduate students)
  - Fall 2019 (48 undergraduate students)
  - Spring 2020 (50 undergraduate students)
  - Spring 2021 (54 undergraduate students)
  - Fall 2021 (48 undergraduate students)
  - Spring 2022 (41 undergraduate students)
  - Spring 2023 (33 undergraduate students)
- APK6170 – Advanced Exercise Physiology
  - Fall 2021 (7 graduate students)
- PET4905/GMS7593 - *Fundamentals of Skeletal Muscle*
  - Fall 2018 (2 lectures)
  - Fall 2019 (2 lectures)
  - Fall 2020 (2 lectures)
  - Fall 2021 (2 lectures)
  - Fall 2022 (2 lectures)
- PET5936 – *Cell Physiology & Biophysics of Exercise*
  - Spring 2020 (10 graduate students)
  - Fall 2022 (6 graduate students)
- PET5936 – *Advanced Methodology in Exercise Biology*
  - Fall 2020 (6 graduate students)

MENTORING

Current Postdoctoral Scholars

Abigail Tice, PhD Florida State University
Abby joined the lab in May 2023 and is working to understand the contribution of muscle mitochondrial to chronic diseases and conditions including aging and peripheral artery disease.

Keon Wimberly, PhD University of Florida
Keon joined the lab in January 2022 and is working on the genetic regulation of frailty. He is currently funded by T32-AG062728 - Translational Research Training on Aging and Mobility (TRAM).

Kyoungrae Kim, PhD Purdue University

Kyoungrae (Raymond) joined the lab in January 2020 and investigating the molecular mechanisms regulating hand dysfunction following arteriovenous fistula placement. He has received a Postdoctoral fellowship from the American Heart Association (POST903198), PVD Travel Grant for Early Career Investigators (2023, American Heart Association), and Postdoctoral Translational Research Award (2023, American Physiological Society).

Current PhD Students

Caroline Pass, B.S., M.S. PhD student in Applied Physiology and Kinesiology
Caroline joined the lab in August 2022 and interested in bioinformatics and the application of 'omics' technology to biomedical sciences. She working on understanding the complex intercellular communication that drive peripheral artery disease pathobiology.

Victoria Palzkill, B.S. PhD Student in Applied Physiology and Kinesiology
Tori is studying mechanisms linking uremia to impaired angiogenesis and arteriogenesis in ischemic muscle.

Gengfu Dong, B.S., M.S. PhD student in Applied Physiology and Kinesiology
Gengfu (Tony) is investigating the role of mitochondria in pathobiology of chronic limb threatening ischemia. Tony has received the Cluff Aging Research Award (2023), Excellence Award for International Students (2022), and was selected for the Applied Physiology & Kinesiology Doctoral Student Research Fellowship (2023-2024).

Nicholas Balestrieri, B.S., M.S. PhD student in Applied Physiology and Kinesiology
Nick is working on the role of the AHR in ischemic muscle pathology in the context of kidney disease.

Trace Thome, B.S., M.S. PhD student in Applied Physiology and Kinesiology
Trace is working on novel mechanisms driving muscle and mitochondrial pathology in chronic kidney disease. He has received a NIH F31 NRSA predoctoral fellowship and Research Recognition Awards from the Endocrinology & Metabolism Section of the American Physiological Society.

Current Masters Students

Ahmad Moussa, B.S. MS student in Applied Physiology and Kinesiology
Ahmad is investigating role of the Hedgehog signaling pathway in the pathogenesis of critical limb ischemia.

Jacob Lackey, B.S. MS Student in Applied Physiology and Kinesiology
Jacob is investigating the mechanisms of muscle impairment with tobacco smoking.

Previous Postdoctoral Scholars

Ram Khattri, PhD University of Akron
Ram trained in the lab from June 2020 through December 2022 by applying his skills as an analytical chemist to investigate metabolomic changes in muscle and vascular pathologies using steady state and tissue-level metabolomics and metabolic flux analyses. He published 9 peer-reviewed papers. *Current Position*: Senior Research Scientist at Curia.

Liam Fitzgerald, PhD University of Massachusetts Amherst
Liam was co-mentored with Dr. Russ Hepple and worked to understand the role of mitochondrial permeability transition in muscle toxicity with tobacco smoking. He received a Postdoctoral fellowship from the American Heart Association. *Current Position*: Senior Regulatory Affairs Associate, Parexel.

Previous Masters Students

Trace Thome, B.S., M.S.
Trace joined the lab in 2018 and his thesis focused on the role of PERM1 in mitochondrial biogenesis. He is currently a PhD student in my lab.

Zachary Salyers, B.S., M.S.
Zach completed his thesis entitled "AAV-mediated expression of PFKFB3 in myofibers, but not endothelial cells, improves ischemic muscle function in mice with critical limb ischemia" in August 2022. Zach is currently a Project Coordinator at Medpace.

Jacob Lackey, B.S., M.S.
Jacob completed his thesis entitled "Chronic aryl hydrocarbon receptor activation impairs muscle mitochondrial energetics with tobacco smoking" in May 2023. Jacob is currently a biological scientist in my lab.

Current Undergraduate Students

Eric Kunz, Applied Physiology and Kinesiology, UF
Eric is a University Scholar Awardee.
Lauren Stone, Biochemistry, UF
Chatick Moparthy, Biology, UF
Jack Moerschel, Applied Physiology and Kinesiology, UF
Samuel Alvarez, Biology, UF
Rachel Hernandez, Applied Physiology and Kinesiology, UF
Jennifer Russell, Microbiology and Cell Science, UF

Previous Undergraduate Students

Dennis Le, Applied Physiology and Kinesiology, UF.
Dennis was a University Scholar Awardee. Completed Honors Thesis: "Construction and validation of DNA plasmids and viral vectors to manipulate glycolytic flux for potential therapeutic development".
Tomas Cort, Applied Physiology and Kinesiology, UF.
Tomas was a University Scholar Awardee.
Ania Murillo, Applied Physiology and Kinesiology, UF.
Jordan Saag, Chemistry, UF.
Madeline Coleman, Applied Physiology and Kinesiology, UF.
Jeremy Lalla, Applied Physiology and Kinesiology, UF.
Ahmad Moussa, Applied Physiology and Kinesiology, UF.
Shawn Khan, Biology, UF
Juliana Morcos, Applied Physiology and Kinesiology, UF
Nicholas Vugman, Biotechnology, UF

Nick completed a Honors Thesis entitled “Characterizing the function of the Fam136a mitochondrial protein in skeletal muscle”.
Nishka Jakkidi, Applied Physiology and Kinesiology, UF
Jianna Tan, Applied Physiology and Kinesiology, UF

Current Biological Scientists

Qingping Yang, M.S.
Jacob Lackey, M.S.
Jianna Tan, B.S.

Previous Biological Scientists

Fabian Berru, B.S. Currently in medical school at the University of Alabama Birmingham.
Madeline Coleman, B.S. Currently in medical school as Eastern Virginia Medical School.
Yongxin Gao, Ph.D. Current employment unknown. Left the lab due to personal reasons.
Zachary Salyers, M.S. Currently employed as a project coordinator at MedPace.

Current Dissertation Committee Member

Christian Maugee, PhD student in Genetics and Genomics, UF
Chih-Hsuan Chou, PhD student in Applied Physiology and Kinesiology, UF
Shandra Trantham, PhD student in Genetics and Genomics, UF
Katelyn Villani, PhD student in Applied Physiology and Kinesiology, UF
Jin-Su Kim, PhD student in Applied Physiology and Kinesiology, UF
Chatchamarn Soonhuae, PhD student in Applied Physiology and Kinesiology, UF

Previous Dissertation Committee Member

Dongwoo Hahn, PhD. Applied Physiology and Kinesiology, UF
Jared Rozowsky, PhD. Biomedical Engineering, UF.
Ravi Kumar, PhD. Applied Physiology and Kinesiology, UF

External Committee Member

Susie Chung, M.S. University of Texas at Arlington
Adam Lucero, Ph.D., Massey University (New Zealand)

PATENTS

T.E. Ryan & K.K. McCully. Systems and Methods for Accurately Measuring Mitochondrial Capacity (US Patent No. 9,706,959), Issue Date: July 18, 2017.

T.E. Ryan & J.M. McClung. Modulation of Ischemic Cell Bioenergetics (US Patent No. 62/428,175), Provisional Filing Date: February 13, 2017.

INVITED PRESENTATIONS

20. *Mitochondria as central regulators of chronic disease.* Children’s Mercy Hospital Research Institute, Kansas City, MO. January 14, 2022.

19. *Skeletal muscle and vascular pathophysiology in chronic kidney disease.* Division of Nephrology, Hypertension, & Renal Transplantation, University of Florida, May 13, 2021.

18. *Novel mechanisms of uremic myopathy in chronic kidney disease*. Padua Muscle Days on Myology & Mobility Medicine, Padova, Italy. May 26-29, 2021.

17. *Mitochondria as Central Regulators of Chronic Disease.* Children's Mercy Research Hospital, Kansas City, KS. April 9, 2020 (Cancelled due to COVID-19).

16. *Proteome Predictors of Surgical Outcomes in Critical Limb Ischemia.* Institute of Aging and Division of Gerontology, University of Florida, Gainesville, FL. February 25, 2020.

15. *Mitochondrial Health in Ischemia Muscle*. Department of Biology, Georgia Tech University, Atlanta, GA. November 19, 2019.

14. *Flipping the Metabolic Switch: Identifying Mechanisms for the Prevention of Ischemic Muscle Injury.* Myology Institute Seminar Series. University of Florida, Gainesville, FL, April 18, 2019.

13. *Linking Kidney Function and Ischemic Myopathy.* Advances in Skeletal Muscle Biology in Health and Disease. University of Florida, Gainesville, FL, March 8, 2019.

12. *Role of Mitochondria in Surgical Outcomes in Critical Limb Ischemia.* Claude D. Pepper Center, University of Florida, Gainesville, FL. Jan

11. *Bioenergetic Mechanisms of Ischemic Pathology*. Mary and Dick Holland Regenerative Medicine Program. University of Nebraska Medical Center, Omaha, NE, April 11, 2017.

10. *Mitochondriopathy in Peripheral Arterial Disease*. Department of Clinical and Translational Science. Creighton University School of Medicine, Omaha, NE, April 10, 2017.

9. *Bioenergetics of PAD myopathy*. Department of Applied Physiology and Kinesiology. University of Florida, Gainesville, FL, February 13, 2017.

8. *Mitochondria and Ischemic Myopath*y. ECU Joint Metabolism Meeting. East Carolina University, Greenville, NC, January 22, 2015.

7. *Mitochondrial Bioenergetics and Redox Biology*. SYMPOSIUM: Mitochondria function 2010 and Beyond. 61st Annual Meeting of the American College of Sports Medicine. Orlando, FL, May 28, 2014.

6. *Assessing In Vivo Mitochondrial Respiratory Capacity Using Optical Spectroscopy*. SEMINAR: Department of Health and Exercise Science, University of Oklahoma, February 17, 2014.

5. *In Vivo Measurements of Skeletal Muscle Mitochondrial Function*. SEMINAR: Department of Physiology, East Carolina University, Greenville, NC, January 17, 2013.

4. *Peripheral Adaptations and Training Responses after Spinal Cord Injury*. SYMPOSIUM: Exercise and Spinal Cord Injury. Annual Meeting of the Mid-Atlantic Region of the American College of Sports Medicine. November 7, 2012.

3. *Electrically-Induced Resistance Exercise in Paralyzed Muscle of Individuals with Spinal Cord Injuries*. SEMINAR: Graduate Student and Post Docs Association Annual Conference, University of Georgia, Athens, GA, May 20, 2011.

2. *Skeletal Muscle Plasticity in People with Complete Spinal Cord Injuries*. SEMINAR: WIPSCI Meeting, Shepherd Center, Atlanta, GA, March 24, 2011.

1. *Assessing Oxygen Delivery and Mitochondrial Function*. SYMPOSIUM: Annual Meeting of the Southeast Chapter of the American College of Sports Medicine, Greenville, SC, February 16, 2011.

SERVICE

- Chair, APK Search Committee for Assistant Professor, 2021-2022
- HHP Graduation Marshall, 2022
- APK Search Committee for Research Engineer, 2021
- Chair, APK Search Committee for Research Administrator I, 2021
- APK Search Committee for Assistant Professor, 2020-2021
- Translational Biomedical Science Review Committee, Office of Research Seed Funding, 2020-Present
- Stanley Lecture and Research Symposia Poster Judge, 2018-2019
- Graduate Curriculum Committee, 2019-Present
- PhD Evaluation/TA Selection Committee, 2019-Present