AUBURN UNIVERSITY

CURRICULM VITAE
C. Brooks Mobley, Ph.D., CSCS, TSAC-F

CONTACT INFORMATION

Auburn University
School of Kinesiology
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ACADEMIC APPOINTMENTS

2026-present **Associate Clinical Professor**
School of Kinesiology, Auburn University
Overall Teaching Evaluation Score = TBD

2021 – 2026 **Assistant Clinical Professor**
School of Kinesiology, Auburn University
Overall Teaching Evaluation Score = 5.8/6.0

EDUCATION

2018 – 2021 **Postdoctoral Research Fellow**
College of Medicine, Department of Physiology, University of Kentucky

2013 – 2017 **Ph.D., Kinesiology**
School of Kinesiology, Auburn University
Dissertation: The effects of leucine or different protein supplements on muscle hypertrophy after 12 weeks of resistance training in untrained men.

2012 – 2013 **M.Ed., Exercise Physiology**
School of Kinesiology, Auburn University

2006 – 2008 **D.V.M., Doctor of Veterinary Medicine (Incomplete)**
College of Veterinary Medicine, Auburn University

2002 – 2006 **B.S., Animal and Dairy Sciences, Pre-Veterinary Medicine**
Department of Animal & Dairy Sciences, Auburn University

ADMINISTRATIVE & LEADERSHIP EXPERIENCE

2025-present **Graduate Program Officer**
School of Kinesiology, Auburn University

2022-present **Chair, Exercise, Performance, & Health Optimization Curriculum**
School of Kinesiology, Auburn University

2021-present **Director, TigerFit Health & Fitness Laboratory**
School of Kinesiology, Auburn University

2021-present **Associate Director, Nutrabolt Applied & Molecular Physiology Laboratory**
School of Kinesiology, Auburn University

RESEARCH & TEACHING APPOINTMENTS

2018 – 2021 **Postdoctoral Research Fellow**
Department of Physiology, University of Kentucky
Area of Focus: Skeletal muscle physiology
P.I.: John J. McCarthy, Ph.D.

2018 – 2021 **Postdoctoral Research Affiliate**
Center for Muscle Biology, University of Kentucky
Area of Focus: Rehabilitative sciences
Director: Charlotte A. Peterson, Ph.D.

2018 **Laboratory Research Assistant**
School of Kinesiology, Auburn University
Molecular and Applied Sciences Laboratory
Director: Michael D. Roberts, Ph.D.

2014 – 2017 **Laboratory Coordinator**
School of Kinesiology, Auburn University
Molecular and Applied Sciences Laboratory
Director: Michael D. Roberts, Ph.D.

2013 – 2017 **Graduate Research/Teaching Assistant**
School of Kinesiology, Auburn University
Overall Teaching Evaluation Score = 5.2/6.0

PROFESSIONAL & TECHNICAL EXPERIENCE

2008 – 2013 **Ag/Vet/Laboratory Technician Level IV**
College of Veterinary Medicine, Department of Pathology, Auburn University
Auburn University Equine Source Plasma Project
Director: Kenny V. Brock, D.V.M., Ph.D.

2004 – 2008 **Ag/Vet Technician**
College of Veterinary Medicine, Department of Pathology, Auburn University
Auburn University Equine Source Plasma Project
Director: Kenny V. Brock, D.V.M., Ph.D.

2002 – 2004 **Ag Technician Level**
College of Agriculture
Auburn University Equestrian Center *(Auburn University Horse Unit)*
Director: Greg Williams

PROFESSIONAL CERTIFICATIONS

2023 **Tactical Strength and Conditioning Facilitator (TSAC-F)**
NSCA ID: 000372992
TSAC-F Certification ID: 7348519748
Exp: 12/31/2029

2014 **Certified Strength and Conditioning Professional (CSCS)**
NSCA ID: 000372992
CSCS Certification ID: 7247896474
Exp: 12/31/2029

PUBLICATIONS

Articles in review (listed from oldest to newest)

1. McCashland M, Zambelli L, Qaqish R, Godwin J, Michel JM, von Walden F, Tu H, Li Y, **Mobley CB**, Roberts MD, Vechetti IJ. Functional miRNAs are necessary for proper hypertrophic response. Comments: Submitted for publication to **Scientific Reports** in December 2025.
Impact Factor: 4.9 (#21 out of 140 in Multidisciplinary Sciences by 2025 Impact Factor)

2. Mueller BJ, McIntosh MC, Tiede DR, Anglin DA, Kontos GJ, Lewis DT, Goodlett MD, Fruge AD, **Mobley CB**, Judd RL, Beck DT, Roberts MD, Kavazis AN. The effects of chronic nitrate supplementation with resistance training on skeletal muscle mitochondrial and redox markers in middle-aged older adults. Comments: Submitted to **Exp Physiol** in January 2026.
Impact Factor: 3.0 (#33 out of 89 in Physiology by 2025 Impact Factor)

3. Lewis DT, Michel JM, McIntosh MC, Tiede DR, Plotkin DL, Mattingly ML, Kontos NJ, Kontos Jr. G, Mueller BJ, Godwin JS, Schoenfeld BJ, Boersma MD, Fruge AD, **Mobley CB**, Kavazis AN, Roberts MD. Aging concomitantly reduces skeletal muscle proteome plasticity and hypertrophic responses to resistance training. Comments: Submitted to **Physiological Reports** in May 2026.
Impact Factor: 2.1 (#62 out of 89 in Physiology by 2025 Impact Factor)

4. Lawson DJ, Lowell RK, Frick K, Bordonie NC, Clouse KG, Ott CD, Dimick HC, Mauldin NR, **Mobley CB**, Sefton JM. The relationship between physical fitness and wellness among students in professional military education. Comments: submitted to **J Ex Sci & Fitness** in August 2026.
Impact Factor: 3.7 (#22 out 136 in Sport Sciences by 2025 Impact Factor)

5. Norton SC, **Mobley CB**, Boersma MD, Daoust J, Roberts MD, Kalman D. Cordyceps militaris elicits functional and molecular outcomes that mimic red beet extract in vascular endothelial cells. Comments: Submitted to **Frontiers of Physiology** in May 2026.
Impact Factor: 4.3 (#15 out of 89 in Physiology by 2025 Impact Factor)

6. Plotkin DL, Tiede DR, Gotla T, Kelly J, Rollin M, Queneua J, Wilborn CD, Meyer-Vega M, Robles-Cerdas V, Bashir A, Beyers RJ, Esquivel CA, **Mobley CB**, Babl R, Kavazis AN, Beck DT, Baweja HS, Vann CG, Swinton P, Taylor LT, Roberts MD. Acute molecular and chronic vastus lateralis adaptations to lengthened partial versus full range of motion resistance training in previously-trained males. Comments: Submitted to **Frontiers of Physiology** in May 2026.
Impact Factor: 4.3 (#15 out of 89 in Physiology by 2025 Impact Factor)

7. Clifton CB, **Mobley CB**, Rumbley MN, Shen J, Stevens N, Brown MD. Immune-associated chronic inflammation: Biological responses between endothelial cells and T cells treated with Thymus vulgaris and Eugenia caryophyllata essential oils. Comments: Submitted to for review to **J of Ethnopharmacology** in June 2026.
Impact Factor: 6.8 (#24 out of 285 in Plant Sciences and #137 by 2025 Impact Factor)

8. Kontos NJ, Kontos Jr. GJ, Lewis DT, Norton SC, Kavazis AN, Beck DT, Boersma MD, **Mobley CB**, McCullough DJ, Ismaeel A, Roberts MD. Exogenous L6 myotube transplantation attenuates hypertrophy and elicits a unique proteomic signature in phenylephrine-treated H9C2 cardiomyocytes. Comments: Submitted to **American Journal of Physiology - Heart and Circulatory Physiology** in September 2026.
Impact Factor: 3.9 (#66 out of 237 in Physiology by 2025 Impact Factor)

Peer-reviewed research articles (listed from newest to oldest)

9. Michel JM, Godwin JS, Graham ZA, Boersma MD, Franchi MV, Baweja HS, **Mobley CB**, Kavazis AN, Hughes DC, Bamman MM, Roberts MD*, Vann CG*. An integrative multi-omic analysis of skeletal muscle in response to disuse and recovery resistance training in resistance trained and untrained young adults. **Skeletal Muscle** (2026). https:// doi.org/10.1186/s13395-026-00440-7.
Impact Factor: 3.9 (#109 out of 207 in Cell Biology by 2025 Impact Factor)

10. Michel JM, Norton SC, Boersma MD, **Mobley CB**, Godwin JS, Nader GA, Libardi CA, Roberts MD. Proteomic profiling of ribosomes from higher versus lower responders to 10 weeks of resistance training. https://doi.org/10.1515/teb-2026-0004. Comments: Accepted for publication into **Trans Exer Biomed** in May 2026. PMID: *Pending*
Impact Factor: N/A (#-- out of -- in Physiology by 2025 Impact Factor)

11. Lowell RK, Lawson DJ, Frick K, Bordonie NC, Clouse KG, Ott CD, Dimick HC, Mauldin NR, **Mobley CB**, Sefton JM. Changes in physical fitness and program utilization during professional military education. **Mil Med**. 2026 Apr 8:usag155. DOI: 10.1093/milmed/usag155. PMID: 41964614
Impact Factor: 1.2 (#167 out of 336 in Medicine, General & Internal by 2025 Impact Factor)

12. Tiede DR, Plotkin DL, McIntosh MC, Michel JM, Huggins KW, Beck DT, Goodlett MD, Carr JC, Schoenfeld BJ, **Mobley CB**, Young KC, Swinton PA, Fruge AD, Roberts MD. Resistance training-induced appendicular lean tissue mass changes are largely unrelated to pre-training bone characteristics in a larger cohort of untrained adults. **Front Physiol**. 2025;16:1681719. DOI: 10.3389/fphys.2025.1681719. eCollection 2025. PMCID: PMC12708283. PMID: 41415307
Impact Factor: 4.3 (#15 out of 89 in Physiology by 2025 Impact Factor)

13. Peoples BM, Samaan MA, **Mobley CB**, Redden DT, Roper JA. Knee health is a major determinant of mobility across the healthspan. **J Funct Morphol Kinesiol**. 2025 Nov 20;10(4):454.
DOI: 10.3390/jfmk10040454. PMCID: PMC12641873. PMID: 41283561
Impact Factor: 2.5 (#51 out of 136 in Sport Sciences by 2025 Impact Factor)

14. Frick KA, Agostinelli PJ, Neal FK, Bordonie NC, **Mobley CB**, Sefton JM. Protective gear negatively impacts police officer mobility, stability, and power generation. **J Funct Morphol Kinesiol**. 2025 Sep 9;10(3):344.
DOI: 10.3390/jfmk10030344. PMCID: PMC12452377. PMID: 40981043
Impact Factor: 2.5 (#51 out of 136 in Sport Sciences by 2025 Impact Factor)

15. Lawson DJ, Lowell RK, **Mobley CB**, Frick K, Bordonie NC, Clouse KG, Ott CD, Dimick HC, Mauldin NR, Sefton JS. Comprehensive Fitness Assessment in a Professional Military Education Cohort: A Cross-Sectional Study. **Int J Exerc Sci**. 2025 Sep 1;18(8):811-835. DOI: 10.70252/WUPH8495. eCollection 2025. PMCID: PMC12408081. PMID: 40910097
Impact Factor: 2.1 (#16 out of 33 in Health Professions by 2025 Impact Factor)

16. McIntosh MC, Michel JM, Godwin JS, Plotkin DL, Anglin DA, Mattingly ML, Birikorang AA, Kontos NJ, Baweja HS, Stock MS, **Mobley CB**, Roberts MD. Disuse and subsequent recovery resistance training affect skeletal muscle angiogenesis related markers regardless of prior resistance training experience. **J Appl Physiol (1985)**. 2025 Jul 1;139(1):81-90. DOI: 10.1152/japplphysiol.00988.2024. Epub 2025 Jun 6. PMID: 40478681
Impact Factor: 3.7 (#21 out of 89 in Physiology by 2025 Impact Factor)

17. Kontos NJ, Godwin JS, Candow DG, Lockwood CM, Roberts MD*, **Mobley CB***. The effects of creatine monohydrate and/or whey protein on the muscle protein synthesis and anabolic signaling responses in non-stressed C2C12 murine myotubes. **Physiologia** 2025, 5(2), 17; https://doi.org/10.3390/physiologia5020017. PMID: *Pending* *-Denotes co-corresponding author
Impact Factor: 2.1 (#62 out of 89 in Physiology by 2025 Impact Factor)

18. Agostinelli PJ, Bordonie NC, Linder BA, Robbins AM, Jones PL, Reagan LF, **Mobley CB**, Miller MW, Murrah WM, Sefton JM. The effect of fitness on performance, exertion, and cognition during simulated firefighter occupational tasks. **J Funct Morphol Kinesiol** 2025 Apr 11;10(2):129. DOI: 10.3390/jfmk10020129. PMCID: PMC12015927. PMCID: PMC12015927. PMID: 40566425
Impact Factor: 2.5 (#51 out of 136 in Sport Sciences by 2025 Impact Factor)

19. Agyin-Birikorang A, Lennon A, Smith KS, Van Der Pol W, Smith MA, Sexton CL, Lamb DA, Young KC, **Mobley CB**, Huggins K, Roberts MD, Fruge AD. Fecal microbiota and associated metabolites are minimally affected by ten weeks of resistance training in younger and older adults. **Sports** (Basel)**.** 2025 Mar 26;13(4):98. DOI: 10.3390/sports13040098. PMCID: PMC12031165. PMID: 40278724
Impact Factor: 3.2 (#32 out of 136 in Sport Sciences by 2025 Impact Factor)

20. Godwin JS, Michel M, Libardi CA, Kavazis AN, Fry CS, Fruge AD, McCashland M, Vechetti IJ, **Mobley CB***, Roberts MD. Resistance exercise and mechanical overload upregulate vimentin for skeletal muscle remodeling. **Am J Physiol Cell Physiol**. 2025 Apr 3. DOI: 10.1152/ajpcell.01028.2024. PMID: 40178318 *-Denotes co-corresponding author
Impact Factor: 5.4 (#8 out of 89 in Physiology and #72 out of 207 in Cell Biology by 2025 Impact Factor)

21. Michel JM, Godwin JS, Kerr NR, Childs TE, Booth FW, **Mobley CB**, Hughes DC, Roberts MD. Skeletal muscle atrophy induced by aging and disuse atrophy are strongly associated with the upregulation of the endoplasmic stress protein CHOP in rats**. Mol Biol Rep**. 2025 Mar 18;52(1):322. DOI: 10.1007/s11033-025-10415-4. PMCID: PMC11919930. PMID: 40100290
Impact Factor: 3.2 (#185 out of 328 in Biochemistry & Molecular Biology by 2025 Impact Factor)

22. Godwin JS, Michel JM, **Mobley CB**, Nader GA, Roberts MD. Skeletal muscle ribosome analysis: A comparison of common assay methods and utilization of a novel RiboAb antibody cocktail. **Physiol Rep**. 2025 Jan;13(1):e70173. DOI: 10.14814/phy2.70173. PMCID: PMC11706719. PMID: 39777435
Impact Factor: 2.1 (#62 out of 89 in Physiology by 2025 Impact Factor)

23. Michel JM, Godwin JS, Plotkin DL, McIntosh MC, Mattingly ML, Agostinelli PJ, Mueller BJ, Anglin DA, Berry AC, Vega MM, Pipkin AA, Stock MS, Graham ZA, Baweja HS, **Mobley CB**, Bamman MM, Roberts MD. Effects of leg immobilization and recovery resistance training on skeletal muscle-molecular markers in previously resistance-trained versus untrained adults. **J Appl Physiol (1985)**. 2025 Jan 16. DOI: 10.1152/japplphysiol.00837.2024. PMID: 39819075
Impact Factor: 3.7 (#21 out of 89 in Physiology by 2025 Impact Factor)

24. Mueller BJ, Roberts MD, **Mobley CB**, Judd RL, Kavazis AN. Nitric oxide in exercise physiology: past and present perspectives. **Front Physiol**. 2025 Jan 9:15:1504978. DOI: 10.3389/fphys.2024.1504978. PMCID: PMC11754211. PMID: 39850450
Impact Factor: 4.3 (#15 out of 89 in Physiology by 2025 Impact Factor)

25. Fei S, Rule BD, Godwin JS, **Mobley CB**, Roberts MD, von Walden F, Vechetti IJ. miRNA-1 regulation is necessary for mechanical overload-induced muscle hypertrophy in male mice. **Physiol Rep**. 2025 Jan;13(1):e70166. DOI: 10.14814/phy2.70166. PMCID: PMC11705529. PMID: 39761956
Impact Factor: 2.1 (#62 out of 89 in Physiology by 2025 Impact Factor)

26. Agostinelli PJ, Bordonie NC, Robbins AM, Jones PL, Reagan LF, **Mobley CB**, Miller MW, Murrah WM, Sefton JM. Impact of acute exercise on performance and physiological stress during simulated firefighter occupational tasks. **Sci Rep**. 2024 Nov 30;14(1):29778. DOI: 10.1038/s41598-024-81015-8. PMID: 39616210
Impact Factor: 4.9 (#21 out of 140 in Multidisciplinary Sciences by 2025 Impact Factor)

27. Mattingly ML, Anglin DA, Ruple BA, Scarpelli MC, Bergamasco JG, Godwin JS, **Mobley CB**, Libardi CA, Roberts MD. Acute and chronic resistance training, acute endurance exercise, nor physiologically plausible lactate *in vitro* affect skeletal muscle lactylation. **Int J Mol Sci**. 2024 Nov 14;25(22):12216. DOI: 10.3390/ijms252212216. PMCID: PMC11594461. PMID:39596281
Impact Factor: 8.5 (#22 out of 191 in Medicine, Research & Experimental by 2025 Impact Factor)

28. Agostinelli PJ, Bordonie NC, Linder BA, Robbins AM, Jones PL, Reagan LF, **Mobley CB**, Miller MW, Murrah WM, Sefton JM. Acute exercise impacts heart rate variability but not cognitive flexibility during subsequent simulated firefighter occupational tasks. Comments: accepted to **Eur J Appl Physiol.** 2024 Nov 13. DOI: 10.1007/s00421-024-05650-9. PMID: 39537898
Impact Factor: 2.9 (#39 out of 89 in Physiology by 2025 Impact Factor)

29. Plotkin DL, Mattingly ML, Anglin DA, Michel JM, Godwin JS, McIntosh MM, Bergamasco J, Scarpelli MC, Angleri V, Taylor LW, Willoughby DS, **Mobley CB**, Kavazis AN, Ugrinowitsch C, Libardi CA, Roberts MD. Skeletal muscle myosin heavy chain fragmentation as a potential marker of protein degradation in response to resistance training and disuse atrophy. **Exp Physiol.** 2024 Oct;109(10):1739-1754. DOI: 10.1113/EP092093. Epub 2024 Aug 24. PMC11442757. PMID: 39180757
Impact Factor: 3.0 (#33 out of 89 in Physiology by 2025 Impact Factor)

30. Burke BI, Ismaeel A, Long DE, Depa LA, Coburn PT, Goh J, Saliu TP, Walton BJ, Vechetti IJ, Valentino TR, **Mobley CB**, Memetimin H, Wang D, Finlin PA, Peterson CA, McCarthy JJ, Wen Y. Extracellular vesicle transfer of miR-1 to adipose tissue modifies lipolytic pathways following resistance exercise. **JCI Insight**. 2024 Nov 8;9(21):e182589. DOI: 10.1172/jci.insight.182589. PMID: 39316445
Impact Factor: 6.8 (#36 out of 191 in Medicine, Research & Experimental by 2025 Impact Factor)

31. Godwin JS, Michel JM, Ludlow AT, Fruge AD, **Mobley CB**, Nader GA, Roberts MD. Relative rDNA copy number is not associated with resistance training-induced skeletal muscle hypertrophy and does not affect myotube anabolism in vitro. **Am J Physiol Regul Integr Comp Physiol**. 2024 Sep 1;327(3):R338-R348. DOI: 10.1152/ajpregu.00131.2024. Epub 2024 Jul 15. PMID: 39005083.
Impact Factor: 3.156 (#42 out of 87 in Physiology and #19 out of 73 in Physiology by 2025 Impact Factor)

32. Ruple BA, Mattingly ML, Godwin JS, McIntosh MC, Kontos NJ, Agyin-Birikorang A, Michel JM, Plotkin DL, Shao-Yung C, Zeigenfuss TN, Fruge AD, Gladden BL, Robinson AT, **Mobley CB**, Mackey AL, Roberts MD. The effects of resistance training on denervated myofibers, senescent cells, and associated protein markers in middle-aged adults. **FASEB J**. 2024 Apr 30;38(8):e23621. DOI: 10.1096/fj.202302103RRR. PMCID: PMC11047210. PMID: 38651653.
Impact Factor: 4.3 (#19 out of 106 in Biology by 2025 Impact Factor)

33. Roberts MD, Ruple BA, Godwin JS, McIntosh MC, Chen SY, Kontos NJ, Agyin-Birikorang A, Michel JM, Plotkin DL, Mattingly M, **Mobley CB**, Ziegenfuss TN, Fruge AD, Kavazis AN. A novel deep proteomic approach in human skeletal muscle unveils distinct molecular signatures affected by aging and resistance training. **Aging** (Albany NY). 2024 Apr 19;16. DOI: 10.18632/aging.205751. PMCID: PMC11087122. PMID: 38643460
Impact Factor: 3.9 (#92 out of 205 in Cell Biology by 2023 Impact Factor)

34. Frick KA, Agostinelli PJ, Harris ME, Swinford JF, **Mobley CB**, Sefton JS. Age-related declines in health and fitness among law enforcement officers compared to population norms. **Healthcare** (Basel). 2024 Mar 24; 12(7):714. DOI: 10.3390/healthcare12070714. PMID: 38610137 PMCID: PMC11011297.

Impact Factor: 3.4 (#57 out of 194 in Health Care Sciences & Services by 2025 Impact Factor)

35. Ismaeel A, Goh J, **Mobley CB**, Murach KA, Rando TA, Peterson CA, Wen Y, McCarthy JJ. Division-independent differentiation of muscle stem cells during a growth stimulus. **Stem Cells**. 2024 Mar 14;42(3):266-277. DOI: 10.1093/stmcls/sxad091. PMID: 38066665
Impact Factor: 4.8 (#13 out of 32 in Cell & Tissue Engineering by 2025 Impact Factor)

36. Michel JM, Godwin JS, Plotkin DL, Mesquita PH, McIntosh MC, Ruple BA, Libardi CA, **Mobley CB**, Kavazis AN, Roberts MD. Proteolytic mechanisms associated with a gain and loss of leg muscle mass with resistance training followed by high-intensity interval training. **Exp Physiol**. 2023 2023 Oct;108(10):1268-1281. DOI: 10.1113/EP091286. Epub 2023 Aug 17. PMID: 37589512
Impact Factor: 3.0 (#33 out of 89 in Physiology by 2025 Impact Factor)

37. Mattingly ML, Ruple BA, Kontos NJ, Sexton CL, McIntosh MC, Godwin JS, Smith MA, Phillips SM, **Mobley CB**, Vechetti I, Van CG, Roberts MD. Resistance training in humans and mechanical overload in rodents does not elevate muscle protein lactylation. **Front. Physiol**. 2023 Sep 28:14:1281702. DOI: 10.3389/fphys.2023.1281702. eCollection 2023. PMID: 37841321
Impact Factor: 4.3 (#15 out of 89 in Physiology by 2025 Impact Factor)

38. Mesquita PHC, Godwin JS, Ruple BA, Sexton CL, McIntosh MC, Mueller BJ, Osburn SC, **Mobley CB**, Libardi CA, Young KC, Gladden BC, Roberts MD, Kavazis AN. Resistance training diminishes mitochondrial adaptations to subsequent endurance training in healthy untrained men. **J Physiol** (London). 2023 Sep;601(17):3825-3846. DOI: 10.1113/JP284822. Epub 2023 Jul 20. PMCID: PMC11062412. PMID: 37470322
Impact Factor: 4.6 (#14 out of 89 in Physiology by 2025 Impact Factor)

39. McIntosh MM, Sexton CL, Godwin JS, Ruple BA, Michel JM, Plotkin DL, Ziegenfuss TN, Lopez HL, Smith R, Dwaraka VB, Sharples AP, Dalbo VJ, **Mobley CB**, Vann CG, Roberts MD. Different resistance exercise loading paradigms similarly affect skeletal muscle gene expression patterns of myostatin-related targets and mTORC1 signaling markers. **Cells**. 2023 Mar 15;12(6):898. DOI: 10.3390/cells12060898. PMCID: PMC10047349. PMID: 36980239
Impact Factor: 6.0 (#59 out of 207 in Cell Biology by 2025 Impact Factor)

40. Godwin JS, Sexton CL, Kontos NJ, Ruple BA, Willoughby D, Young K, **Mobley CB***, Roberts M*****. Extracellular matrix content and remodeling markers do not differ between higher and lower responders to resistance training. **J Appl Physiol** (1985). 2023 Feb 9. DOI: 10.1152/japplphysiol.00596.2022. PMID: 36759158 (***-denotes co-corresponding authorship**)
Impact Factor: 3.7 (#21 out of 89 in Physiology by 2025 Impact Factor)

41. Sexton CL, Godwin JS, McIntosh MC, Ruple BA, Osburn SC, Hollingsworth BR, Kontos NJ, Agostinelli PJ, Kavazis AN, Ziegenfuss TN, Lopez HL, Smith R, Young KC, Dwaraka VB, Fruge AD, **Mobley CB**, Sharples AP, Roberts MD. Skeletal muscle DNA methylation and mRNA responses to a bout of higher versus lower load resistance exercise in previously trained men. **Cells** 2023, Jan 9; 12(2), 263. DOI: 10.3390/cells12020263. PMID: 36672198 PMCID: PMC9856538
Impact Factor: 6.0 (#59 out of 207 in Cell Biology by 2025 Impact Factor)

42. Borowik AK, Davidyan A, Peelor III, FF, Voloviceva E, Doidge S, Bubank MP, **Mobley CB**, McCarthy JJ, Dupont-Versteegden EE, Miller BF. Skeletal muscle nuclei in mice are not post-mitotic. **Function** (Oxf). 2022 Nov 22;4(1):zqac059. DOI: 10.1093/function/zqac059. eCollection 2023. PMID: 36569816 PMCID: PMC9772608
Impact Factor: 5.0 (#11 out of 89 in Physiology and #76 out of 207 in Cell Biology by 2025 Impact Factor)

43. Keeble AR, Brightwell CR, Latham CM, Thomas NT, **Mobley CB**, Murach KA, Johnson DL, Noehren B., Fry CS. Depressed protein synthesis and anabolic signaling potentiate ACL tear resultant quadriceps atrophy.

Am J Sports Med. 2022 Dec 7;3635465221135769. DOI: 10.1177/03635465221135769. PMID: 36475881 PMCID: PMC9813974
Impact Factor: 5.4 (#9 out of 136 in Sports Sciences by 2025 Impact Factor)

44. Osburn S, Mesquita P, Neal F, Rumbley M, Holmes M, Ruple B, **Mobley CB**, Brown M, McCullough D, Kavazis A, Roberts M. Long-term voluntary wheel running effects on markers of Long Interspersed Nuclear Element-1 in skeletal muscle, liver, and brain tissue of female rats. **Am J Physiol Cell Physiol**. 2022 Sep 1;323(3):C907-C919. DOI: 10.1152/ajpcell.00234.2022. Epub 2022 Aug 8. PMID: 35938680
Impact Factor: 5.4 (#8 out of 89 in Physiology and #72 out of 207 in Cell Biology by 2025 Impact Factor)

45. Dungan CD, Figueiredo VC, Wen Y, VonLehmden GL, Zdunek CJ, Thomas NT, **Mobley CB**, Murach KA, Brightwell CR, Long DE, Fry CS, Kern PA, McCarthy JJ, Peterson CA. Senolytic treatment rescues blunted muscle hypertrophy in old mice. **GeroScience**. 2022 Mar 24. DOI: 10.1007/s11357-022-00542-2. PMID: 35325353
Impact Factor: 6.0 (#12 out of 72 in Geriatrics & Gerontology by 2025 Impact Factor)

46. Valentino TR, **Mobley CB**, Casagrande VF, Iwata MC, McCarthy JJ, Vechetti Jr IJ. Evidence of myomiR regulation of the pentose phosphate pathway during mechanical load-induced hypertrophy. **Physiol Rep**. 2021 Dec;9(23):e15137. DOI: 10.14814/phy2.15137. PMID: 34889054
Impact Factor: 2.1 (#62 out of 89 in Physiology by 2025 Impact Factor)

47. Sexton CL, Smith MA, Smith KS, Osburn SC, Godwin JS, Ruple BA, Hendricks AM, **Mobley CB**, Goodlett MD, Frugé AD, Young KC, Roberts MD. Effects of peanut protein supplementation on resistance training adaptations in younger adult females. **Nutrients**. 2021 Nov 9;13(11):3981. DOI: 10.3390/nu13113981. PMID: 34836236 PMCID: PMC8621247
Impact Factor: 5.8 (#19 out of 114 in Nutrition & Dietetics by 2025 Impact Factor)

48. Valentino TR, Vechetti Jr IJ, **Mobley CB**, Dungan CM, Golden L, Gho J, McCarthy JJ. Dysbiosis of the gut microbiome impairs mouse skeletal muscle adaptation to exercise. **J Physiol** (London). 2021 Sep 26. DOI: 10.1113/JP281788. PMID: 34569067
Impact Factor: 4.6 (#14 out of 89 in Physiology by 2025 Impact Factor)

49. Valentino TR, Rule BD, **Mobley CB**, Nikolova-Karakashian M, Vechetti Jr IJ. Skeletal muscle cell growth alters the lipid composition of extracellular vesicles. **Membranes** (Basel). 2021 Aug 12;11(8):619. DOI: 10.3390/membranes11080619. PMID: 34436382
Impact Factor: 4.2 (#89 out of 191 in Chemistry, Physical by 2025 Impact Factor)

50. Wen Y, Dungan CM, **Mobley CB**, Valentino TR, von Walden F, Murach KA. Nucleus type-specific DNA methylomics reveals epigenetic "Memory" of prior adaptation in skeletal muscle. **Function** (Oxf). 2021 Aug 5;2(5):zqab038. doi: 10.1093/function/zqab038. eCollection 2021. DOI: 10.1093/function/zqab038. PMID: 34870208 PMCID: PMC8636928
Impact Factor: 3.8 (#17 out of 87 in Physiology and #95 out of 204 in Cell Biology by 2024 Impact Factor)

51. Vann CG, Haun CT, Osburn SC, Romero MA, Roberson PA, Mumford PW, **Mobley CB**, Holmes HM, Fox CD, Young KC, Roberts MD. Molecular differences in skeletal muscle after 1 week of active vs. passive recovery from high-volume resistance training. **J Strength Cond Res**. 2021 Jun 16. DOI: 10.1519/JSC.0000000000004071. PMID: 34138821
Impact Factor: 3.0 (#38 out of 136 in Sports Sciences by 2025 Impact Factor)

52. Figueiredo VC, Wen Y, Alkner B, Fernandez-Gonzalo R, Norrbom J, Vechetti Jr. IJ, Valentino TR, **Mobley CB**, Peterson CA, McCarthy JJ, Murach KA*, von Walden F*. Genetic and epigenetic regulation of skeletal muscle ribosome biogenesis with exercise. **J Physiol**. 2021 Apr 29. DOI: 10.1113/JP281244. PMID: 33913170
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GRANTS, FELLOWSHIPS, GIFTS & FUNDING

School of Kinesiology
Auburn University, Auburn, Alabama

PENDING

2026 **Project Title:** Kinnor Mat Acute Recovery Study
Principal Investigator(s): Michael D. Roberts, Ph.D.
Role in Project: Co-Principal Investigator **Effort:** 16% **Credit:** 33%
Source of Funding: Kinnor Technologies
Duration of Project: 1/2027 – 6/2027
Amount Requested: $297,257 **Grant Application Number:** *Pending*

Project Title: Whey Protein Bioactive Comparisons In Vitro
Principal Investigator(s): Michael D. Roberts, Ph.D.
Role in Project: Co-Principal Investigator **Effort:** 16% **Credit:** 51%
Source of Funding: Nutrabolt
Duration of Project: 8/2026 – 8/2027
Amount requested: $121,353 **Grant Application Number:** *Pending*

FUNDED

2022-present **Project Title:** Muscle Multi-Omics Analysis
Principal Investigator(s): Michael D. Roberts, Ph.D.
Role in Project: Co-Investigator **Effort:** 10% **Credit:** 50%
Source of Funding: Subaward from UMHB – Parent Sponsor: IOVATE
Duration of Project: 8/2026 – 8/2027
Amount Awarded: $92,501 **Grant Application Number:** *Pending*

Project Title: Effects of Two Different Pre-Workout Supplements on Acute Strength/Power and Perceived Energy Outcomes in Trained Individuals
Principal Investigator(s): Michael D. Roberts, Ph.D.
Role in Project: Co-Investigator **Effort:** 10% **Credit:** 49%
Source of Funding: Compound Solutions
Duration of Project: 6/2025 – 8/2026
Amount Awarded: $78,555 **Grant Application Number:** FP00000971

Project Title: The Combined Effects of Dietary Nitrate Supplementation and Resistance Exercise to Improve Vascular Health in Older Adults
Principal Investigator(s): Michael D. Roberts, Ph.D.; Darren Beck, Ph.D.
Role in Project: Co-Investigator **Effort:** 0.1% **Credit:** 25%
Source of Funding: Edward Via College of Osteopathic Medicine
Duration of Project: 7/2024 – 7/2025

Amount Awarded: $40,000 **Grant Application Number:** G00018062

Project Title: Can Ketone Supplementation Attenuate the Adverse Cardiorenal Consequences of High Dietary Salt in Human Participants?
Principal Investigator(s): Austin Robinson, Ph.D.; Jianzhong Shen, Ph.D. (Co-I)
Role in Project: Co-Investigator **Effort:** 0.1% **Credit:** 0.1%
Source of Funding: Auburn University Intramural Grants Program (IGP) Research Support Program (RSP)
Duration of Project: 2/2022 – 8/2024
Total Award: $25,000 **Grant Application Number:** 22-025/1492

Project Title: Two-Aim Study Examining the Absorption of Vitamin C and Iron
Principal Investigator(s): Michael Roberts, Ph.D.
Role in Project: Co-Investigator **Effort:** 1% **Credit:** 49%
Institution/University: Auburn University
Source of Funding: Megafoods **Duration of Project:** 7/2023 – 6/2025
Total Award: $157,639 **Grant Application Number:** 0797-23P

Project Title: Extramural Grant: Effects of Two Different Nutritional Supplements on Nutrient Absorption in Caco-2 Cells
Principal Investigator(s): Michael Roberts, Ph.D.
Role in Project: Co-Investigator **Effort:** 0.1% **Credit:** 50%
Source of Funding: Compound Solutions **Duration of Project:** 8/2022 – 7/2023
Total Award: $55,000 **Grant Application Number:** 242911

Project Title: The Effects of Extracorporeal Magnetic Innervation (ExMI) on Myostatin and Vastus Lateralis Muscle
Principal Investigator(s): Michael D. Roberts, Ph.D.; Darren Beck, Ph.D.
Role in Project: Co-Investigator **Effort:** 0.1% **Credit:** 25%
Source of Funding: Edward Via College of Osteopathic Medicine
Duration of Project: 10/2022 – 7/2023
Total Award: $33,500 **Grant Application Number:** ED22-055

NOT FUNDED

2022-present **Project Title:** Peanut-Rich Diet to Improve Metabolic Health in Women
Principal Investigator(s): Drew Fruge, Ph.D., Michael Roberts, Ph.D., April Smith, Ph.D., Andreas Kavazis, Ph.D.
Role in Project: Co-Investigator **Effort:** 8% **Credit:** 5%
Source of Funding: The Peanut Institute Foundation
Duration of Project: 7/2023 – 6/2025
Amount Requested: $747,639 **Grant Application Number:** 0821-23P

Project Title: Examination of how different types of on-shift exercise impact the ability to respond to emergency calls.
Principal Investigator(s): JoEllen Sefton, Ph.D.
Role in Project: Co-Investigator **Effort:** 0.1% **Credit:** 25%
Source of Funding: Department of Homeland Security
Duration of Project: 7/2022 – 6/2024
Amount Requested: $286,863 **Grant Application Number:** ED22-030

Project Title: The Effect of Different Acute Training Modalities on Occupational Firefighting Performance
Principal Investigator(s): Philip Agostinelli

Role in Project: Co-Investigator **Effort:** 0.1% **Credit:** 25%
Source of Funding: National Strength and Conditioning Association
Duration of Project: 8/2022 – 5/2023
Amount Requested: $13,180 **Grant Application Number:** ED22-024

GIFT FUNDING

2022-present **Source of Funding:** Blue Cross Blue Shield
Total Amount Procured: $100,000

OUTREACH FUNDING

2021-present **Source of Funding:** TigerFit Assessments
Total Amount Procured: $7,500

Department of Physiology
University of Kentucky, Lexington, Kentucky

FUNDED

2020 - 2021 **Funding Agency:** American Physiological Society Postdoctoral Fellowship
Project Title: Prolonged satellite cell depletion alters the myonuclear transcriptome.
Role: Principal Investigator **Effort:** 100% **Credit**: 100%
Duration of Project: 11/2020 – 10/2021
Total Award: $50,000

NOT FUNDED

2019 – 2020 **Funding Agency:** National Institutes of Health F32 NRSA Postdoctoral Fellowship
Project Title: Enhanced myonuclear alertness with prolonged satellite cell depletion
Amount requested: $202,062 **Effort:** 100% **Credit**: 100%
Role: Principal Investigator

Funding Agency: American Physiological Society Postdoctoral Fellowship
Project Title: The role of satellite cells in juvenile skeletal muscle hypertrophy
Amount requested: $50,000 **Effort:** 100% **Credit**: 100%
Role: Principal Investigator

SPONSORED RESEARCH PROJECTS

2018 – 2021 **Project Title:** Exercise-induced skeletal muscle exosomes promote adipocyte lipolysis
Principal Investigator(s): John J. McCarthy, Ph.D. and Charlotte A. Peterson, Ph.D.
Role in Project: Postdoctoral Scholar **Effort:** 30% **Credit**: 0.1%
Institution/University: University of Kentucky
Source of Funding: National Institutes of Health
Duration of Project: 9/2018 – 7/2023 **Total Award:** $2,328,863
Project Number: 5R01DK119619-02 **Grant Number:** 3200002218/3210001086

Project Title: Novel roles for satellite cells in adult skeletal muscle adaptation
Principal Investigator(s): John J. McCarthy, PhD & Charlotte A. Peterson, Ph.D.
Role in Project: Postdoctoral Scholar **Effort:** 40% **Credit**: 0.1%
Institution/University: University of Kentucky
Source of Funding: National Institutes of Health
Duration of Project: 9/2010 – 6/2021 **Total Award:** $3,022,203
Project Number: 5R01AR060701-10 **Grant Number:** 3200000136/3210000132

Project Title: The effects of exercise on satellite cell dynamics during aging

Principal Investigator(s): John J. McCarthy, Ph.D. and Charlotte A. Peterson, Ph.D.
Role in Project: Postdoctoral Scholar **Effort:** 20% **Credit:** 0.1%
Institution/University: University of Kentucky
Source of Funding: National Institutes of Health
Duration of Project: 01/2016-11/2020 **Total Award:** $1,155,065 (to date)
Project Number: 5R01AG069909-03 **Grant Number:** 3210000198/320000363

Project Title: Biomarkers for the Early Detection of Adverse Health Effects Resulting from Embedded Metal-Fragment Wounds
Principal Investigator(s): John J. McCarthy, Ph.D. and Charlotte A. Peterson, Ph.D.
Role in Project: Postdoctoral Scholar **Effort:** 10% **Credit:** 0.1%
Institution/University: University of Kentucky
Source of Funding: Department of Defense
Duration of Project: 10/2016-09/2021 **Total Award:** $1,000,436 (to date)
Project Number: W81XWH-16-2-0058 **Grant Number:** 3200001099/3200000519

INVITED LECTURES

(National, Regional, Local, Institutional)

2026 **Physical Activity & Diabetes**
Harrison School of Pharmacy, Auburn, AL. August 13.

Protein Bioactives – Beyond Amino Acids & Total Nitrogen
ISSN Nutrabolt Symposium, Austin, TX. March 21.

Exercise Prescription & Nutrition for Health, Fitness, & Performance.
Air University Leadership & Innovation Institute, Montgomery, AL. January 21.

2024 **No Nonsense Nutrition: A Practical Understanding and Application for Nutritional Planning and Health**
Maxwell Air Force Base, The Eagle Institute, Montgomery, AL. December 2.

Exercise Programming and Nutrition Recommendations for Tactical Athletes
Maxwell Air Force Base, The Eagle Institute, Montgomery, AL. October 21.

Exercise Programming and Prescription for Health, Fitness, & Performance.
Air University Leadership & Innovation Institute, Montgomery, AL. September 4.

2023 **Practical Health and Wellness Education for Police Officers and the Development of a New Fitness Test.**
Warrior Research Summit, Auburn Hotel, Auburn, AL. September 28.

Nutrition for Elite Performance in Tactical Athletes.
City of Auburn Police Department (4 briefings), Auburn, AL. March 6 – 7.

2018 **Whey protein: More than just leucine.**
Skeletal Muscle Forum, College of Health Sciences, University of Kentucky, Lexington, KY. February 14.

2017 **Inducible overexpression of p21Cip1 in myotubes promotes increases in protein synthesis and myotube hypertrophy.** Conference: 64th Annual American College of Sports Medicine Meeting. Denver, CO. June 2.

2015 **Nutrition: The practical application for the regular exerciser.**

Conference: Southeastern Chapter of the American College of Sports Medicine Meeting. Jacksonville, FL. February 15.

2013 – 2014 Protein Supplementation for Elite Performance.
U.S. Army Ranger's briefing (3 briefings), Fort Benning, GA. October – April.

TEACHING EXPERIENCE

School of Kinesiology
Auburn University, Auburn, Alabama ***-denotes new course* ***Accurate through Fall 2024 semester***

Course Number	*Course Name*	*Year(s)*	*Level*	*Section(s)*	*Course Role*
PHED 1023	Freshman Fit (hybrid)	2013-2014	Undergraduate	8	Instructor
KINE 3680	Physiology of Exercise	2014-2017; 2022-present	Undergraduate	30	Instructor
KINE 3687	Physiology of Exercise (Honors)	2025-present	Undergraduate	6	Instructor
KINE 3873	Legal and Illegal Supplements	2014-2015	Undergraduate	2	Instructor
KINE 4600	Strength Development	2014	Undergraduate	1	Instructor
KINE 4600*	Strength & Conditioning Dev.	2024	Undergraduate	1	Instructor
KINE 4630	Strength and Conditioning Prep	2014; 2022-present	Undergraduate	19	Instructor
KINE 4930	Internship in PAH	2021-present	Undergraduate	6	Instructor
KINE 4940	Internship in FCP	2021-present	Undergraduate	6	Instructor
KINE 4970*	Special Topics: Clinical Skills for the Health Professional	2022	Undergraduate	1	Instructor
KINE 5400	Exercise Prescription for Normal and Special Populations	2021	Undergraduate	1	Instructor
KINE 5400*	Exercise Assessment, Prescription & Programming	2022-present	Undergraduate	14	Instructor
KINE 5500	Clinical Exercise Testing	2021	Undergraduate	1	Instructor
KINE 5501	Clinical Exercise Testing Lab	2021	Undergraduate	1	Instructor
KINE 5920*	Internship in Kinesiology	2023-present	Undergraduate	10	Instructor
KINE 6400	Exercise Prescription for Normal and Special Populations	2021	Graduate	1	Instructor
KINE 6400*	Exercise Assessment, Prescription & Programming	2022-present	Graduate	14	Instructor
KINE 6600	Physiological Basis of Training	2022-present	Graduate	5	Instructor
KINE 6920*	Internship in Kinesiology	2023	Graduate	1	Instructor
KINE 7630*	Strength & Conditioning Prep	2022-present	Graduate	13	Instructor
KINE 7820	Internship in Kinesiology	2021-present	Graduate	12	Instructor
KINE 7970	Special Topics: Strength & Conditioning Preparation	2022	Graduate	1	Instructor
KINE 7970*	Special Topics: Clinical Skills for the Health Professional	2022	Graduate	1	Instructor

GRADUATE AND UNDERGRADUATE STUDENT ADVISING & MENTORING

(*Listed from current to previous*)

School of Kinesiology
Auburn University, Auburn, Alabama

Mary Wilbourne	2026-present	Graduate (Master's)	Exercise Physiology
Caitlyn Yao	2026-present	Graduate (Master's)	Exercise Physiology
Bailey Gilreath	2026-present	Graduate (Master's)	Exercise Physiology
Sarah Lewis	2026-present	Graduate (Master's)	Exercise Physiology
Julie Hartley Khanna	2026-present	Graduate (Master's)	Exercise Physiology
Aaron Debus	2026-present	Graduate (Master's)	Exercise, Performance & Health Opt.
Duncan Thompson	2026-present	Graduate (Master's)	Exercise, Performance & Health Opt.
Uthra Balamurugan	2026-present	Graduate (Master's)	Exercise, Performance & Health Opt.
Aidan Steyer	2026-present	Graduate (Master's)	Exercise, Performance & Health Opt.
Ryann Hutcheson	2026-present	Graduate (Master's)	Exercise, Performance & Health Opt.
Sara Carver Milne	2025-2026	Graduate (Master's)	Exercise, Performance & Health Opt.
Reagan Stuke	2025-2026	Graduate (Master's)	Exercise, Performance & Health Opt.
Camila Esquivel	2025-2026	Graduate (Master's)	Exercise Physiology
Devin Parker	2025-2026	Graduate (Master's)	Exercise Physiology
Logan Estes	2025-2026	Graduate (Master's)	Exercise, Performance & Health Opt.
Madeline Hagler	2025-2026	Graduate (Master's)	Exercise, Performance & Health Opt. (GTA)
Lawton Hawkins	2025-2026	Graduate (Master's)	Exercise Physiology
Levi Lindsey	2025-2026	Graduate (Master's)	Exercise Physiology
Jordan Ninde	2024-2025	Graduate (Master's)	Motor Behavior (GTA; co-mentor)
Ella Moore	2024-2025	Graduate (Master's)	Exercise Physiology (co-mentor)
Nathan Eury	2024-2026	Graduate (Master's)	Exercise Physiology
Jack Morgan	2024-2026	Graduate (Master's)	Exercise, Performance & Health Opt.
Max McMahon	2024-2025	Graduate (Master's)	Exercise, Performance & Health Opt.
Noah McMeekin	2024-2025	Graduate (Master's)	Exercise, Performance & Health Opt.
Russell Clark	2024-2026	Graduate (Master's)	Exercise Physiology
Zhihui Fang	2024-2026	Graduate (Master's)	Exercise, Performance & Health Opt.
Hyun Soo Kim	2024-2026	Graduate (Master's)	Exercise, Performance & Health Opt.
Nicholas Mauldin	2024-2026	Graduate (Master's)	Exercise Physiology
Garrick Baines	2024 (INC.)	Graduate (Master's)	Exercise, Performance & Health Opt.
Jada Banks	2024-2025	Graduate (Master's)	Exercise Physiology
Madelyn Byrne	2024 (INC.)	Graduate (Master's)	Exercise, Performance & Health Opt.
Harrison Dimick	2024-2025	Graduate (Master's)	Exercise Physiology
Kionna Gaines	2024 (INC.)	Graduate (Master's)	Exercise, Performance & Health Opt.
Sebastian Fitzpatrick	2024-2025	Graduate (Master's)	Exercise Physiology
Cameron Ott	2024-2025	Graduate (Master's)	Exercise Physiology
Abbey Smith	2024-2025	Graduate (Master's)	Exercise Physiology
Parker Jones	2024-2025	Graduate (Master's)	Exercise Physiology
Katherine Kneram	2023-2025	Graduate (Master's)	Exercise Physiology
Saman Masood	2023-2024	Graduate (Master's)	Exercise, Performance & Health Opt.
Alyssa Annarelli	2023-2024	Graduate (Master's)	Exercise Physiology
Alexander Berry	2023-2024	Graduate (Master's)	Exercise Physiology
Anthony Burton	2023-2024	Graduate (Master's)	Exercise, Performance & Health Opt.
Christine Callaham	2023-2024	Graduate (Master's)	Exercise, Performance & Health Opt.
Stephen Cooper	2023-2024	Graduate (Master's)	Exercise Physiology
Kamren Eriksen	2023-2024	Graduate (Master's)	Exercise Physiology (GTA)
Camryn Fritsch	2023-2024	Graduate (Master's)	Exercise Physiology
Justin Hamlette	2023 (INC.)	Graduate (Master's)	Exercise, Performance & Health Opt.
Carson Anderson	2023-2024	Graduate (Master's)	Exercise, Performance & Health Opt.
Dustyn Lewis	2023-2024	Graduate (Master's)	Exercise Physiology

Daniel Martin	2023-2024	Graduate (Master's)	Exercise Physiology
Emma Nester	2023 (INC.)	Graduate (Master's)	Exercise, Performance & Health Opt.
Cara Sczuroski	2023-2024	Graduate (Master's)	Exercise Physiology
Julia Swinford	2022-2023	Graduate (Master's)	Biomechanics (GTA; co-mentor)
Kile Aukerman	2022-2023	Graduate (Master's)	Exercise Physiology
Emma Breeze	2022-2023	Graduate (Master's)	Exercise Physiology
Mick Harris	2022-2024	Graduate (Master's)	Exercise Physiology
Nicholas Kontos	2022-2023	Graduate (Master's)	Exercise Physiology
Allen Loefstedt	2022-2023	Graduate (Master's)	Exercise Physiology
Bailey Parrish	2022-2023	Graduate (Master's)	Exercise Physiology
Daisy Platts	2022-2024	Graduate (Master's)	Exercise Physiology
Sakina Rizvi	2022-2023	Graduate (Master's)	Physical Activity & Health
Caleb Webster	2022 (INC.)	Graduate (Master's)	Exercise Physiology
Brandon Crifasi	2021-2023	Graduate (Master's)	Exercise Physiology (co-mentor)
Jonathan Housand	2021-2023	Graduate (Master's)	Exercise Physiology
Saori Ishiki	2021-2023	Graduate (Master's)	Physical Activity & Health
Nicholas Swoger	2021-2023	Graduate (Master's)	Exercise Physiology
Samuel Sears	2021-2024	Graduate (Master's)	Exercise Physiology
Kilian Zierer	2022	Graduate (Master's)	Physical Activity & Health
Shanelle Valentine	2021-2022	Graduate (Master's)	Physical Activity & Health
Nyjel Green	2021-2022	Graduate (Master's)	Exercise Physiology
Amber Leonard	2021-2022	Graduate (Master's)	Physical Activity & Health
Madison Mattingly	2021-2022	Graduate (Master's)	Exercise Physiology
Breanna Mueller	2021-2022	Graduate (Master's)	Exercise Physiology
Katy Medford	2021-2022	Graduate (Master's)	Exercise Physiology
Christie Clifton	2021-2023	Graduate (Doctoral)	Exercise Physiology (co-mentor)
Melissa Rumbley	2021-2022	Graduate (Doctoral)	Exercise Physiology (co-mentor)
Chloe Jones	2021-2022	Graduate (Doctoral)	Physical Activity & Health (GTA)
Anthony Birikorang	2021	Graduate (Master's)	Physical Activity & Health
Shelby Osburn	2016-2018	Undergraduate	Exercise Physiology
Hudson Holmes	2017-2017	Undergraduate	Biology, Pre-Medicine
David Baumohl	2015-2017	Undergraduate	Biology, Pre-Medicine
Romil Patel	2015-2017	Undergraduate	Biology, Pre-Medicine
James Healy	2014-2017	Undergraduate	Biology, Pre-Medicine

Department of Physiology
University of Kentucky, Lexington, Kentucky

Taylor Valentino (McCarthy)	2018-2021	Graduate (Doctoral)	Physiology
Jensen Gho (McCarthy)	2019-2021	Graduate (Doctoral)	Physiology
Austin Wellette-Hunsucker (Campbell)	2021	Graduate (Doctoral)	Physiology
Leslie Golden (McCarthy)	2019	Graduate (Doctoral)	Physiology
Amity Lumpp	2019	Undergraduate	Kinesiology, Pre-Medicine
Samuel Langford	2019	Undergraduate	Public Health, Pre-Medicine
Jennifer Wayland	2018	Undergraduate	Physiology, Pre-Medicine

MASTER'S THESIS & DOCTORAL DISSERTATION ACTIVITY

(*Listed from current to previous*)

School of Kinesiology

Auburn University, Auburn, Alabama

Dakota Tiede (Roberts)	2026-present	Doctoral	Committee Member	KINE
Brandon Crifasi (Roberts)	2026-present	Doctoral	Committee Member	KINE
Derick Anglin (Roberts)	2025-present	Doctoral	Committee Member (co-Chair)	KINE
Madison Mattingly (Roberts)	2025-2026	Doctoral	Committee Member (co-Chair)	KINE
Nick Kontos (Roberts)	2025-2026	Doctoral	Committee Member	KINE
Daniel Plotkin (Roberts)	2025-2026	Doctoral	Committee Member	KINE
Aidan Cavanah (Frugé)	2025	Doctoral	University Reader	NTRI
Laura Robinson (Frugé)	2025	Doctoral	University Reader	NTRI
Nina Stute (Gladden/Turner)	2025-2026	Doctoral	Committee Member	KINE
Max Michel (Roberts)	2024-2025	Doctoral	Committee Member (co-Chair)	KINE
Brandon Peoples (Roper)	2024-2026	Doctoral	Committee Member	KINE
Zach Hutchinson (Robinson)	2023-2025	Doctoral	Committee Member	KINE
Soolim Jeong (Robinson)	2023-2025	Doctoral	Committee Member (co-Chair)	KINE
Breanna Mueller (Kavazis)	2023-2025	Doctoral	Committee Member	KINE
Tony Birikorang (Roberts)	2023-2024	Doctoral	Committee Member	KINE
Josh Godwin (Roberts)	2023-2024	Doctoral	Committee Member (co-mentor)	KINE
Braxton Linder (Robinson)	2023-2024	Doctoral	Committee Member	KINE
Philip Agostinelli (Sefton)	2022-2024	Doctoral	Committee Member	KINE
Bradley Ruple (Roberts)	2022-2023	Doctoral	Committee Member	KINE
Darby Winkler (Wadsworth)	2022	Doctoral	Committee Member	KINE
Olivia Altonji (Huggins)	2022	Doctoral	University Reader	NTRI
Casey Sexton (Roberts)	2021-2022	Doctoral	Committee Member	KINE
Melissa Rumbley (Brown)	2021-2022	Doctoral	Committee Member (co-mentor)	KINE

PROFESSIONAL SERVICE, AWARDS & HONORS

Professional Scholarly Service

2023-present Guest Editor, Scientific Reports (ISSN 2045-2322)
Special Issue: Muscle Hypertrophy

Guest Editor, Nutrients (ISSN 2072-6643)
Special Issue: Effects of Nutrient Intake on Skeletal Muscle Health

Guest Editor, Nutrients (ISSN 2072-6643)
Special Issue: The Role of Macronutrients and Micronutrients in Skeletal Muscle Metabolism

Guest Editor, Nutrients (ISSN 2072-6643)
Special Issue: Quantitative Diet, Body Composition, and Sports Performance of Players

2022-present Editorial Board Member, Scientific Reports (ISSN 2045-2322)
Skeletal muscle biology

Editorial Board Member, Nutrients (ISSN 2072-6643)
Sports Nutrition

2022-2023 Guest Editor, Frontiers in Nutrition (ISSN N/A)
Special Issue: Supplement Use in Sports Nutrition

2021-2022 Guest Editor, Nutrients (ISSN 2072-6643)
Special Issue: Adipose Tissue Metabolism and Exercise in Health and Disease

2021-2022 Guest Editor, Nutrients (ISSN 2072-6643; IF: 6.706)
Special Issue: Recent Perspectives on the Role of Dietary Protein for Resistance Exercise Training

AD HOC Journal Reviewer

iScience
Nutrition
Nutrients
Muscle & Nerve
Scientific Reports
Physiological Reports
Frontiers in Physiology
Physiological Genomics
Experimental Physiology
British Journal of Nutrition
Journal of Applied Physiology
Frontiers in Sports and Active Living
International Journal of Sports Medicine
Journal of Cachexia and Skeletal Muscle
Medicine & Science in Sports & Exercise
Journal of Strength & Conditioning Research
Applied Physiology, Nutrition, and Metabolism
Journal of International Sports Science Nutrition

Professional Organization, Service & Memberships

2013-present National Strength and Conditioning Association (NSCA)
2019-present American Physiological Society (APS)
2020-present National Center for Faculty Diversity & Development (NCFDD)
2021-present School of Kinesiology Internship Coordinator, Auburn University
2021-present School of Kinesiology Radiation and Safety Officer, Auburn University
2021-present School of Kinesiology Ex Phys & EPHO Graduate Advisor, Auburn University
2022-present School of Kinesiology EPHO Curriculum Chair, Auburn University
2022-present Triathlon Athlete Club Advisor, Auburn University
2023-present School of Kinesiology Graduate Student Advisory Committee, Auburn University
2024-present School of Kinesiology Curriculum Development Taskforce, Auburn University
2024-present Kinesiology Club Advisor, Auburn University
2024-present Jiu-Jitsu Club Advisor, Auburn University
2024-present School of Kinesiology Building and Research Space Manager, Auburn University
2025-present College of Education Graduate Council Committee, Auburn University
2026-present Chair, College of Education Graduate Council Committee, Auburn University
2025 – 2026 College of Education Engagement & Governance Committee, Auburn, University
2026 Search Advisory Committee for Kinesiology Director, Auburn University
2022 – 2026 School of Kinesiology Faculty Senator Representative, Auburn University
2025 – 2026 Risk Management and Campus Safety Senate Committee, Auburn University
2025 School of Kinesiology Senior Paper Taskforce, Auburn University
2024 – 2025 School of Kinesiology Teaching Evaluation Taskforce, Auburn University
2024 – 2025 College of Education Engagement Committee, Auburn University
2023 – 2024 School of Kinesiology Clinical Faculty Search Committee, Auburn University
2023 – 2024 School of Kinesiology DPT Clinical Faculty Search Committee Chair, Auburn University
2023 – 2024 College of Education Diversity Committee, Auburn University
2022 Three-Minute Thesis (3MT) Judging Panel Member, Auburn University
2022 School of Kinesiology Graduate Curriculum Committee, Auburn University
2022 School of Kinesiology Graduate Admissions Task Force, Auburn University
2021 Core Facilities Committee, Department of Physiology, University of Kentucky
2020 – 2021 COVID-19 Research Response Team, University of Kentucky
2020 – 2021 National Postdoctoral Association (NPA)

2019 – 2021 Postdoctoral Representative, Department of Physiology, University of Kentucky
2018 – 2021 Center for Muscle Biology, College of Health Sciences, University of Kentucky
2018 – 2021 Society of Postdoctoral Scholars, University of Kentucky
2015 – 2017 Kappa Omicron Nu Honor Society
2015 – 2017 Gamma Beta Phi Honor Society
2015 – 2017 National Society of Leadership and Success
2014 – 2017 Delta Epsilon Iota Honor Society
2013 – 2017 American College of Sports Medicine: Southeast Chapter
2013 – 2017 American College of Sports Medicine (ACSM)

Academic Awards & Honors

2025 The Gerald and Emily Leischuck Outstanding Undergraduate Teaching Award

2020 American Physiological Society Postdoctoral Fellowship Program
Cell & Molecular Physiology Section Winner (APS Top 12 Overall)

2019 American Physiological Society Postdoctoral Fellowship Program
Cell & Molecular Physiology Section Winner (APS Top 12 Overall)

2017
- Auburn University's Outstanding Doctoral Student Award
- School of Kinesiology Outstanding Graduate Student Award
- Kochan Fund for Excellence Graduate Award
- American Kinesiology Association Doctoral Scholar Award

2015
- 1st Place Research Presentation Award at the UAB 3rd Annual UCEM Symposium
- 2nd Place Doctoral Research Award for ACSM: Southeast Chapter

2014
- US ARMY Ranger Training Brigade Certificate of Appreciation
- American Kinesiology Association Master's Scholar Award
- Honor Roll Annual Scholarship

PROFESSIONAL DEVELOPMENT ACTIVITIES

2022 **Importance of Mentorship at All Career Levels APS DEI Series**, October 20
A webinar highlighting how to find good mentors, creating a supportive network, and setting expectations for the mentoring relationship.

Tools of the Trade – National Institutes of Health, February 24
A webinar series offered by Hanover Research helping researchers identify and navigate grant writing, submission, and proper organization grant submission relevance for the National Institutes of Health.

2020 ***UNIT*ed In racial *E*quity (UNITE) Research Initiative**
Training on stimulating and fostering impactful and sustainable research in 1) racial disparities, health equity, social and racial justice and 2) research focused on establishing best practices to inform policies and procedures to recruit and retain diverse faculty, staff, and students.

Did They Really Just Say That?! Responding to Bias at Work
Training on employing actionable skills to facilitate educational conversations in response to comments/actions that involve gender identity, racism, sexism, etc. and having a more inclusive environment to help with the recruitment and retention of underrepresented groups in academics.

Writing and Reviewing for Advances in Physiology Education
Training on employing techniques and strategies for writing and reviewing papers related to physiology education and how educators have adapted their teaching during a pandemic.

2019 **Good Research Practices and Data Reproducibility**
Research training centered on recommendations for employing best research practices to support rigor and transparency in scientific research, per the National Institutes of Health requirements.

SCIENTIFIC DEVELOPMENT ACTIVITIES

2021-present **Molecular Signals Mediating Increases in Muscle Size and Function**, American Physiological Society, May 14
Bert Blaauw, Ph.D., of the Venetian Institute of Molecular Medicine at University of Padova, discussed the elucidation of skeletal muscle regulatory pathways and offered approaches to tackle muscle deficits or therapy.

Science of Aging – Aging and Skeletal Muscle Plasticity, American Physiological Society , September 29
Sue Bodine, Ph.D., discussed how the loss of skeletal muscle mass is the result of a variety of disparate conditions and affects everyone as a result of aging.

Science of Aging – Quality, Quantity and Timing: Regulating Healthspan and Lifespan with Diet, American Physiological Society, July 7
Dudley Lamming, Ph.D., of the University of Wisconsin-Madison, discussed how diets can affect metabolic health and longevity.

Science of Aging – Aging and Bone Health, American Physiological Society, June 22
Joy Wu, MD, Ph.D., of Stanford University discussed the pathophysiology of bone loss with aging.

Science of Aging – The Challenges of Sarcopenia: Definition, Underlying Mechanisms, Interventions and Outcomes, American Physiological Society, May 19
Charlotte Peterson, Ph.D., and Jack Guralinik, Ph.D., provided an in-depth overview of the underlying mechanisms of sarcopenia with potential therapeutic interventions and outcomes.

CONFERENCE PRESENTATIONS

National Conference Proceedings

2025 McIntosh MC, Michel JM, Godwin JS, Plotkin DL, Anglin DA, Mattingly ML, Birikorang AA, Kontos NJ, Baweja HS, Stock MS, **Mobley CB**, Roberts MD. Leg immobilization and recovery resistance training affect skeletal muscle angiogenesis-related markers in young healthy adults regardless of prior training experience. American Physiology Summit. Baltimore, MD. April 24-27.

2024 Frick K, Agostinelli P, Bordonie N, Neal F, **Mobley CB**, Sefton J. Fitness of the force tactical wellness collaboration. 71st Annual American College of Sports Medicine Meeting. Boston, MA. May 28 – 31.

Bordonie N, Agostinelli P, Robbins A, Jones P, Reagan L, **Mobley CB**, Miller M, Murrah W, Sefton J. Sex-differences in physiology during simulated firefighting tasks following acute exercise. 71st Annual American College of Sports Medicine Meeting. Boston, MA. May 28 – 31.

Vega MM, Michel JM, Plotkin DL, McIntosh M, Godwin J, Anglin DA, Agostinelli P, Kontos NJ, Mattingly ML, Berry AC, Mueller B, **Mobley CB**, Stock MS, Baweja N, Beck DT, Roberts MD, Baweja H. Neuromuscular adaptations in response to disuse and weight-training rehabilitation are enhanced in resistance trained individuals. American Physiology Summit. Baltimore, MD. April 21-24.

Agostinelli P, Bordonie N, Linder B, Robbins A, Jones P, Reagan L, **Mobley CB**, Miller M, Murrah W, Sefton J. The impact of training status on firefighter task performance after acute exercise. American Physiology Summit. Baltimore, MD. April 21-24.

Bordonie N, Agostinelli P, Linder B, Robbins A, Jones P, Reagan L, **Mobley CB**, Miller M, Murrah W, Sefton J. Impact of anaerobic fitness on performance and physiology during simulated firefighting tasks. American Physiology Summit. Baltimore, MD. April 21-24.

Agostinelli PJ, Bordonie NC, Robbins AM, Jones PL, Reagan LF, **Mobley CB**, Miller MW, Murrah WM, Sefton JM. The effect of two acute exercise modalities on physiology and condition during firefighter occupational tasks. 71st Annual American College of Sports Medicine Meeting. Boston, MA. May 28 – 31.

Anglin DA, Michel JM, McIntosh MC, Plotkin DL, Godwin JS, Agostinelli PJ, Mattingly ML, Kontos NJ, Berry AC, Vega MM, Beck DT, **Mobley CB**, Stock MS, Baweja HS, Roberts MD. Resistance-trained individuals experience greater atrophy strength loss during leg immobilization versus untrained individuals. 71st Annual American College of Sports Medicine Meeting. Boston, MA. May 28 – 31.

Michel JM, Godwin JS, **Mobley CB**, Roberts MD. Impact of aging on markers of endoplasmic reticulum stress and the unfolded protein response. 71st Annual American College of Sports Medicine Meeting. Boston, MA. May 28 – 31.

Godwin JS, Michel JM, Fruge AD, Kavazis AN, Fry CS, **Mobley CB**, Roberts MD. Response of vimentin to mechanical overload induced skeletal muscle hypertrophy. 71st Annual American College of Sports Medicine Meeting. Boston, MA. May 28 – 31.

Mueller BJ, Sexton CL, Godwin JS, McIntosh MC, Ruple BA, Kontos NJ, Young KC, Fruge AD, **Mobley CB**, Roberts MD, Kavazis AN. Mitochondrial mRNA acute response to bouts of high- and low-load resistance training. 71st Annual American College of Sports Medicine Meeting. Boston, MA. May 28 – 31.

Kontos NJ, Godwin JS, Michel JM, Hardin SR, Berry AZ, Roberts MD, **Mobley CB**. Time course of muscle protein synthesis & related pathway markers in response to whey protein and creating in vitro. 71st Annual American College of Sports Medicine Meeting. Boston, MA. May 28 – 31.

2023 McIntosh MC, Sexton CL, Godwin JS, Ruple BA, Osburn SC, Michel JM, Plotkin DL, **Mobley CB**, Roberts MD. Transient responses to mTORC1 and myostatin signaling markers to two different bouts of resistance exercise. 70th Annual American College of Sports Medicine Meeting. Denver, CO. May 30 – June 2.

McIntosh MC, Sexton CL, Godwin JS, Ruple BA, Osburn SC, Michel JM, Plotkin DL, **Mobley CB**, Roberts MD. Transient responses to myostatin signaling markers to two different bouts of resistance exercise. 70th Annual American College of Sports Medicine Meeting. Denver, CO. May 30 – June 2.

McIntosh MC, Libardi C, Godwin JS, Smith M, Sexton C, Ruple BA, **Mobley CB**, Young KC, Kavazis, Roberts MD. Resistance training increases sarcolemmal protein concentrations in untrained college-aged women. 70th Annual American College of Sports Medicine Meeting. Denver, CO. May 30 – June 2.

2022 McIntosh MC, Sexton CL, Godwin JS, Ruple BA, Osburn SC, Hollingsworth BR, Agostinelli PJ, Kavazis AN, Ziegenfuss TN, Lopez HL, Smith R, Young KC, Dwaraka VB, **Mobley CB**, Sharples AP, Roberts MD. Effects of different types of resistance exercise failure training on the methylation status of genes that drive skeletal muscle hypertrophy. Experimental Biology. Philadelphia, PA. April 2-5.

Sexton CL, Godwin JS, Ruple BA, McIntosh MC, Osburn SC, Hollingsworth BR, Agostinelli PJ, Kavazis AN, Ziegenfuss TN, Lopez HL, Smith R, Young KC, Dwaraka VB, **Mobley CB**, Sharples AP, Roberts MD. Global DNA methylation status in relation to resistance training with high vs. low loads to failure. Experimental Biology. Philadelphia, PA. April 2-5.

Godwin JS, Ruple BA, Sexton CL, Smith MA, Frugé AD, Young KC, **Mobley CB**, Roberts MD. Extracellular matrix content and remodeling does not differ between high-responders and lower-responders to resistance training. Experimental Biology. Philadelphia, PA. April 2-5.

2020 Valentino TR, Vechetti Jr IJ, **Mobley CB**, Goh JZ, McCarthy JJ. The gut microbiome is required for skeletal muscle adaptation to exercise. Miami Winter Symposium 2020. Molecular Mechanisms Linking the Microbiome and Human Health. Miami, FL. January 26 – 29.

2019 Butterfield TA, Kruithof E, **Mobley CB**, McCarthy JJ. Inducible depletion of titin kinase in adult skeletal muscle impairs passive tension-induced sarcomerogenesis. 43rd Annual Meeting of the American Society of Biomechanics. Calgary, Alberta, Canada. July 31 – August 4.

Moore JH, Haun CT, Grandprey EL, Joubert KP, Vann CG, Mumford PW, Romero MA, Osburn SC, **Mobley CB**, Moon JR, Roberts MD, Young KC. A comparison of techniques for estimating and detecting changes in skeletal muscle cross-sectional area. 66th Annual American College of Sports Medicine Meeting. Orlando, FL. May 28 – June 1.

Grandprey EL, Joubert KP, Haun CT, Vann CG, Roberson PA, Mumford PW, Romero MA, Osburn SC, **Mobley CB**, Moon JR, Roberts MD, Young KC. Agreement between dual-energy x-ray absorptiometry and a new standing bioimpedance spectroscopy device for detecting changes in fat-free tissue. 66th Annual American College of Sports Medicine Meeting. Orlando, FL. May 28 – June 1.

2016 **Mobley CB**, Mumford P, Pascoe D, Miller M, Roberts M. Whey protein-derived exosomes increase protein synthesis in C_2C_{12} myotubes. 13th Annual International Sports Science of Nutrition Meeting. Clearwater, FL. June 9 – 11.

Mobley CB, Mumford P, Kephart W, Haun C, Holland A, Osburn S, Beck D, Martin J, Young K, Kavazis A, Lowery R, Wilson J, Roberts M. Effects of aging on markers of ribosome biogenesis in fast- and slow-twitch skeletal muscle in rodents aged 3 to 24 months. 100th Annual Experimental Biology Meeting. San Diego, CA, April 2 – 6.

2015 **Mobley CB**, Holland A, Kephart W, Lowery R, Mumford P, McCloskey A, Shake J, Mesquita P, Wilson J, Roberts M. The anabolic skeletal muscle response to acute resistance exercise is not impaired in rats fed a ketogenic diet. 12th Annual International Sports Science Nutrition Conference. Austin, TX, June 11 – 13.

Mobley CB, Kephart W, Fox C, Santucci V, Beck D, Yarrow J, McCarthy J, Kirby T, Borst S, Roberts M, Martin J. Differential effects of testosterone and trenbolone on skeletal muscle markers of ribosome biogenesis. 99th Annual Experimental Biology Meeting. Boston, MA. March 28 – April 1.

2014 **Mobley CB**, Fox C, Thompson M, Healy J, Young K, Wachs T, Moon J, Kim M, Pascoe D, Roberts M. Differential effects of L-leucine and whey protein on post-exercise skeletal muscle protein synthesis. 8th American College of Sports Medicine: Integrative Biology of Exercise Conference. Miami, FL. September 17 – 21.

Mobley CB, Fox C, Pascoe C, Healy J, Ferguson B, Lowery R, Lockwood C, Stout J, Jäger R, Kavazis A, Wilson J, Roberts M. Phosphatidic acid feeding increases muscle protein synthesis and select mTORC1 pathway signaling mediators in rodent skeletal muscle. 11th Annual International Sports Science of Nutrition Meeting. Clearwater, FL. June 21 – 22.

Mobley CB, Fox C, Wilson J, Pascoe D, Amin R, Dalbo V, Wilson J, Roberts M. Effects of purported anabolic nutrients on myostatin-induced skeletal muscle atrophy in C_2C_{12} myotubes. 61st Annual American College of Sports Medicine Meeting. Orlando, FL. May 27 – 31.

Mobley CB, Fox C, Ferguson B, Pascoe C, Healy J, Lockwood C. Roberts M. Differential effects of whey protein concentrate and hydrolyzed whey/egg protein blends on postprandial markers of insulin signaling and skeletal muscle anabolism in rats. 98th Annual Experimental Biology Meeting. San Diego, CA. April 28.

Regional Conference Proceedings

2018 **Mobley CB**, Haun CT, Roberson PA, Mumford PW, Kephart WC, Romero MA, Osburn SC, Vann CG, Young KC, Beck DT, Lockwood CM, Roberts MD. Biomarkers associated with type II muscle fiber hypertrophy response following 12-weeks of resistance training in young, untrained males. Southeastern Chapter of the American College of Sports Medicine Meeting. Chattanooga, TN. February 14 – 17.

2017 **Mobley CB**, Haun CT, Roberson PA, Mumford PW, Kephart WC, Romero MA, Osburn SC, Vann CG, Young KC, Beck DT, Lockwood CM, Roberts MD. Biomarkers associated with type II muscle fiber hypertrophy response following 12-weeks of resistance training in young, untrained males. 5th Annual UAB Center for Exercise Medicine Symposium. Birmingham, AL. September 22.

2016 **Mobley CB**, Mumford PW, Kephart WC, Haun CT, Holland AM, Osburn SC, Beck DT, Martin JS, Young KC, Kavazis AN, Lowery RP, Wilson JM, Roberts MD. Associations of fast- and slow-twitch muscle fiber size and markers of skeletal muscle hypertrophy in young, middle age, and older rodents. 4th Annual UAB Center for Exercise Medicine Symposium. Birmingham, AL. September 22.

Mobley CB, Mumford P, Pascoe D, Miller M, Roberts M. Anabolic effects of whey protein persist beyond essential amino acid content in myotubes. Southeastern Chapter of the American College of Sports Medicine Meeting. Greenville, SC. February 18 – 20.

2015 **Mobley CB**, Mumford P, Pascoe D, Pustovyy O, Miller M, Lockwood C, Roberts M. Anabolic effects of whey protein- and milk-derived exosomes on skeletal muscle. 3rd Annual UAB Center for Exercise Medicine Symposium. Birmingham, AL. September 25. *1st place Research Presentation Award*.

Mobley CB, Kirby T, Fox C, Ballmann C, Quindry J, McCarthy J, Roberts M. Inducible overexpression of p21Cip1 in myotubes promotes an increase in protein synthesis and myotube hypertrophy. Southeastern Chapter of the American College of Sports Medicine Meeting. Jacksonville, FL. February 13 – 15. *2nd place Doctoral Student Research Presentation Award*.

2014 **Mobley CB**, Fox C, Thompson M, Healy J, Young K, Wachs T, Moon J, Kim M, Pascoe D, Roberts M. Differential effects of L-leucine and whey protein on post-exercise skeletal muscle protein synthesis. 2nd Annual UAB Center for Exercise Medicine Symposium. Birmingham, AL. September 26.

Mobley CB, Toedebush R, Heese A, Zhu C, Cruthirds C, Lockwood C, Booth F, Roberts M. Effects of an anti-inflammatory supplement on liver health markers following Western Diet feeding in rats. Accepted for presentation at Southeastern Chapter of the American College of Sports Medicine Meeting, Greenville, SC. February 13 – 15.

PUBLICATION IMPACT

2012-2026

Google Scholar

h-index:	36
i10-index:	81
Total citations:	3,778

Note that these metrics only include peer-reviewed journal articles; abstracts have been manually removed; account checked weekly to ensure veracity

ResearchGate

h-index:	30
Total citations:	3,033
Publication reads:	59,865

Note that these ResearchGate metrics include peer-reviewed journal articles as well as published scientific abstracts; account checked weekly to ensure veracity

Scopus

h-index:	26
Total citations:	2,148

SCHOLARLY PLATFORM LINKS AND IDs

Scopus ID: 56124484900

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https://scholar.google.com/citations?user=HRgjw5gAAAAJ&hl=en

My NCBI

https://www.ncbi.nlm.nih.gov/myncbi/1FAUAhaRl5ZYdQ/bibliography/public/

LABORATORY TECHNIQUES & TRAINING

- Extracellular vesicle isolation, characterization, and analysis from cells, bodily fluids, and dietary food sources
- Skeletal muscle nuclei (myonuclei) isolation and analysis
- Ribosome isolation, purification, and quantification
- Single myofiber isolation and analysis
- Flow cytometry and fluorescence activated-cell sorting (FACS)
- Click Chemistry detection method using azides and alkynes as specific binding moieties for molecular targets.
- Progressive wheel running in murine models
- Synergist ablation surgery (functional overload for rapid muscle growth)
- Animal husbandry and rodent colony management
- Transgenic mice husbandry
- Inducible gene expression in transgenic mice
- Genotyping of transgenic mice
- Isolation of skeletal muscle stem cells
- Electrical stimulation of skeletal muscle stem cells
- Percutaneous human skeletal muscle biopsy
- Enzyme-linked immunosorbent assay (ELISA) for serum or plasma analyses
- Immunohistochemistry (IHC) for protein expression and localization in muscle cross-section and single myofiber.
- Immunoblotting (Western Blotting) for protein expression
- Reverse-transcriptase and quantitative polymerase chain reaction (RT/q-PCR) for gene expression.
- DNA, RNA, and Protein isolation for biochemical analyses
- MyoVision and ZEN imaging software analysis
- Exercise programming and prescription (ACSM and NSCA guidelines)
- Indirect calorimetry (exercise tests, resting energy expenditure)
- Body composition assessment (BIA, BIS, DEXA, Skinfolds)
- Maximal exercise tests (1RM, IMTP, VO_2max)
- Submaximal exercise tests
- Phlebotomy (venipuncture)
- Cell culture methodologies:
    - Human primary muscle stem cells (satellite cells),
    - Murine primary muscle stem cells (satellite cells),
    - Human umbilical vein cells (HUVEC),
    - C_2C_{12} myoblasts and derived myotubes,
    - CaCo-2 intestinal cells,
    - Plasmid transfection,
    - Viral DNA transfection,
    - Stable clone generation.

PROFESSIONAL REFERENCES

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