

Aaron B. Morton, Ph.D.

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amorton@tamu.edu

Biography

Dr. Aaron Morton has served as an Assistant Professor in the Department of Kinesiology and Sport Management at Texas A&M University (TAMU) since 2022. His research focuses on neurovascular crosstalk during regeneration in soft tissue and biomaterial enhancement of regeneration, both in the context of injury and disease. He has published 27 articles in peer-reviewed journals (cited over 1000 times), 1 full and 1 provisional patent (all his technologies are already licensed to three different companies), and delivered 12 invited presentations (1 international). Dr. Morton has secured approximately \$738,000 in research funding and research awards from various external and internal sources. In his teaching role, Dr. Morton instructs undergraduate courses in therapeutic principles and exercise physiology. He mentors 3 PhD students, 1 master's student, 2 undergraduates, and served as a committee member of 4 additional doctoral students and 1 additional master's student. His commitment to service is reflected in his involvement of various departmental, college, and university committees. Dr. Morton's achievements have been recognized through the numerous invited reviews for top-tier journals. Dr. Morton has performed professionally and has not engaged in behaviors that may lead to dismissal for cause as specified in TAMU's System Policy 12.01, Section 4.3.

Degrees

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|------|-------------------------------------------------------------------------|
| 2018 | Ph.D., Exercise Physiology, University of Florida, Gainesville, FL, USA |
| 2013 | M.S., Exercise Science, University of West Florida, Pensacola, FL, USA |
| 2010 | B.S., Exercise Science, Harding University, Searcy, AR, USA |

Texas A&M - Rank and Promotion History

| Effective Date of Rank | End Date of Rank | Faculty Title | Tenure Classification | Department | College | | |
|------------------------|------------------|---------------|-----------------------|--------------|---------|------|-----|
| 9/1/2022 | | | Assistant Professor | Tenure-Track | KNSM | CEHD | DEF |

Revised 11/3/2025

Career Work Experience

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|--------------|-----------------------------------------------------------------------------------------------------------------------------|
| 2022-Present | Assistant Professor, Texas A&M University, Department of KNSM, College Station, Texas, United States |
| 2023-Present | Faculty of the Cardiovascular Research Institute, Texas Health Science Center, College Station, Texas, United States |
| 2018-2022 | Postdoctoral Fellow, University of Missouri, Department of Medical Pharmacology and Physiology, Columbia, MO, United States |
| 2013-2018 | Research Assistant, University of Florida, Department of APK, Gainesville, FL, United States |
| 2011-2013 | Adjunct Instructor, University of West Florida, Department of HLES, Pensacola, FL, United States |
| 2010-2012 | Graduate Assistant, University of West Florida, Department of HLES, Pensacola, FL, United States |

Awards and Honors

| Year Conferred | Award and Honor Title | Conferring Organization | Award Classification | Award and Honor Level | Detailed Description of Award |
|----------------|----------------------------|-----------------------------------------|----------------------|-----------------------|-------------------------------------------------|
| 2025 | NIH LRP | NIAMS | Research Award | National | |
| 2025 | Most Iconic Leaders Series | The Enterprise World | Magazine Article | Regional | Selected as an iconic leader in business |
| 2025 | Invited, Sponsored Guest | Cook Children's Hospital Fort Worth, TX | Research Honor | Regional | Invited and sponsored to attend research summit |
| 2024 | APS SURF Host | American Physiological Society | Service Award-Honor | National | Selected as an ideal lab for |

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|------|--------------------------------------------------------|--------------------------------|----------------|----------|------------------------|
| | | | | | undergraduate training |
| 2022 | Research Symposium Best Postdoctoral Abstract Award | University of Missouri | Research Award | Local | |
| 2022 | Pappenheimer Postdoctoral Travel Award | Microcirculatory Society | Research Award | National | |
| 2021 | Health Science Research Day Basic Science Poster Award | University of Missouri | Research Award | Local | |
| 2020 | APS IPE Best Poster | American Physiological Society | Research Award | National | |
| 2020 | Cardiovascular Day Poster Award | University of Missouri | Research Award | Local | |
| 2019 | Provost's Scholar Award | University of Missouri | Research Award | Local | |
| 2018 | Neuromuscular Plasticity Summit Poster Award | University of Florida | Research Award | Local | |
| 2013 | Jane Adams Edmonds Endowed PhD Fellowship | University of Florida | Research Award | Local | |
| 2012 | Exercise Science Graduate Student of the Year | University of West Florida | Research Award | Local | |

Professional Certifications

| Effective Date | Expiration Date | Organization | Type | Board Certified | Board Eligible | Specialty | Sub-Specialty | Certification Number | Lifetime Board Certification |
|----------------|-----------------|--------------|------|-----------------|----------------|---------------------|---------------|----------------------|------------------------------|
| 2011 | 2014 | NSCA | CSCS | | | Organized Athletics | | | |
| 2012 | 2014 | ACSM | CES | | | Personal Training | | | |

Teaching (Custom Section)

| Course Title | Course | Credit Hours | Lab Hours | Instruction Mode | Lecture Hours | Student Credit Hours | Enrollment | If co-taught, % | Descriptive | Semester | Multidisciplinary Collaboration |
|--------------|--------|--------------|-----------|------------------|---------------|----------------------|------------|-----------------|-------------|----------|---------------------------------|
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| | | | | | | | | contributed to course | | | Activities Included |
|---------------------------|----------|----|---|-----------|---|-----|----|--------------------------|----------------------------|-------------|------------------------|
| Cardio Weightlifting | PEM 1120 | 2 | | In Person | | 2 | | 100 | University of West Florida | Fall 2010 | |
| Cardio Weightlifting | PEM 1120 | 2 | | In Person | | 2 | | 100 | University of West Florida | Spring 2011 | |
| Cardio Weightlifting | PEM 1120 | 2 | | In Person | | 2 | | 100 | University of West Florida | Fall 2011 | |
| Cardio Weightlifting | PEM 1120 | 2 | | In Person | | 2 | | 100 | University of West Florida | Spring 2012 | |
| Exercise Testing & Rx Lab | PET 2965 | | 1 | In Person | | 1 | | 100 | University of West Florida | Fall 2012 | |
| Exercise Testing & Rx Lab | PET 2965 | | 1 | In Person | | 1 | | 100 | University of West Florida | Spring 2013 | |
| Anatomy Lab | APK 2100 | | 1 | In Person | 2 | 1 | | 100 | University of Florida | Fall 2013 | |
| Physiology Lab | APK 2105 | | 1 | In Person | 2 | 1 | | 100 | University of Florida | Spring 2014 | |
| Physiology Lab | APK 2105 | | 1 | In Person | 2 | 1 | | 100 | University of Florida | Fall 2014 | |
| Physiology Lab | APK 2105 | | 1 | In Person | 2 | 1 | | 100 | University of Florida | Spring 2015 | |
| Physiology Lab | APK 2105 | | 1 | In Person | 2 | 1 | | 100 | University of Florida | Fall 2015 | |
| Physiology Lab | APK 2105 | | 1 | In Person | 2 | 1 | | 100 | University of Florida | Spring 2016 | |
| Therapeutic Principles | KINE 427 | 3 | | In Person | 3 | 279 | 93 | 100 | Texas A&M University | Fall 2022 | |
| Research | KINE 491 | 4 | | In Person | | | 2 | 100 | Texas A&M University | Fall 2022 | |
| Directed Studies | KINE 685 | 12 | | In Person | | | 1 | 100 | Texas A&M University | Fall 2022 | |
| Therapeutic Principles | KINE 427 | 3 | | In Person | 3 | 225 | 75 | 100 | Texas A&M University | Spring 2023 | |
| Physiology of Exercise | KINE 433 | 3 | | In Person | 3 | 99 | 33 | 100 | Texas A&M University | Spring 2023 | |
| Research | KINE 491 | 4 | | In Person | | 4 | 2 | 100 | Texas A&M University | Spring 2023 | |

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|-------------------------|----------|----|--|-----------|---|-----|----|-----|----------------------|-------------|--|
| Professional Internship | KINE 684 | 6 | | In Person | | 3 | 1 | 100 | Texas A&M University | Spring 2023 | |
| Directed Studies | KINE 685 | 12 | | In Person | | 5 | 3 | 100 | Texas A&M University | Spring 2023 | |
| Research | KINE 691 | 23 | | In Person | | 8 | 1 | 100 | Texas A&M University | Summer 2023 | |
| Directed Studies | KINE 685 | 12 | | In Person | | 2 | 1 | 100 | Texas A&M University | Fall 2023 | |
| Research | KINE 691 | 23 | | In Person | | 8 | 1 | 100 | Texas A&M University | Fall 2023 | |
| Therapeutic Principles | KINE 427 | 3 | | In Person | 3 | 243 | 81 | 100 | Texas A&M University | Fall 2023 | |
| Therapeutic Principles | KINE 427 | 3 | | In Person | 3 | 213 | 71 | 100 | Texas A&M University | Spring 2024 | |
| Research | KINE 691 | 4 | | In Person | | 1 | 1 | 100 | Texas A&M University | Spring 2024 | |
| Directed Studies | KINE 685 | 12 | | In Person | | 4 | 1 | 100 | Texas A&M University | Spring 2024 | |
| Research | KINE 691 | 23 | | In Person | | 9 | 1 | 100 | Texas A&M University | Spring 2024 | |
| Research | KINE 691 | 23 | | In Person | | 12 | 2 | 100 | Texas A&M University | Summer 2024 | |
| Directed Studies | KINE 685 | 2 | | In Person | | 0 | 2 | 100 | Texas A&M University | Fall 2024 | |
| Research | KINE 691 | 6 | | In Person | | 0 | 1 | 100 | Texas A&M University | Fall 2024 | |
| Therapeutic Principles | KINE 427 | 3 | | In Person | 3 | 249 | 83 | 100 | Texas A&M University | Fall 2024 | |
| Directed Studies | KINE 685 | 12 | | In Person | | 5 | 2 | 100 | Texas A&M University | Fall 2024 | |
| Research | KINE 691 | 6 | | In Person | | 6 | 1 | 100 | Texas A&M University | Fall 2024 | |
| Therapeutic Principles | KINE 427 | 3 | | In Person | 3 | 213 | 71 | 100 | Texas A&M University | Spring 2025 | |
| Directed Studies | KINE 685 | 12 | | In Person | | 5 | 1 | 100 | Texas A&M University | Spring 2025 | |
| Research | KINE 691 | 6 | | In Person | | 6 | 1 | 100 | Texas A&M University | Spring 2025 | |
| Research | KINE 491 | 3 | | In Person | | | 2 | 100 | Texas A&M University | Summer 2025 | |
| Directed Studies | KINE 685 | 6 | | In Person | | | 1 | 100 | Texas A&M University | Summer 2025 | |
| Research | KINE 691 | 12 | | In Person | | | 2 | 100 | Texas A&M University | Summer 2025 | |

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| Therapeutic Principles | KINE 427 | 3 | | In Person | 3 | 237 | 79 | 100 | Texas A&M University | Fall 2025 | |
| Research | KINE 491 | 3 | | In Person | | | 1 | 100 | Texas A&M University | Fall 2025 | |
| Directed Studies | KINE 685 | 6 | | In Person | | | 2 | 100 | Texas A&M University | Fall 2025 | |
| Research | KINE 691 | 12 | | In Person | | | 1 | 100 | Texas A&M University | Fall 2025 | |

Additional Teaching Activities

| Title | Audience | Location Instruction Delivered | Sponsoring Organization | Number of Participants | Descriptive | Start Date | End Date | Method of Delivery | Other Teaching Role | Student Collaborators | Teaching Innovation and Curriculum Development Type | Teaching Level |
|--------------------------------|----------|--------------------------------|-------------------------|------------------------|----------------------------|------------|------------|--------------------|---------------------|-----------------------|-----------------------------------------------------|-----------------|
| Careers in Exercise Physiology | Students | Columbia, MO | University of Missouri | | Research Career | 2020-04-03 | 2020-04-03 | In Person | Instructor | No | | Invited Lecture |
| Exercise Physiology | Students | Nashville, TN | Lipscomb University | | ROS in Exercise | 2020-09-07 | 2020-09-07 | Online | Instructor | | | Invited Lecture |
| Microcirculation | Students | Columbia, MO | University of Missouri | | Neurovascular Regeneration | 2021 | 2021 | Online | Instructor | | | Invited Lecture |

Undergraduate Advising

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|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2020-2021 | Activity Advised/Mentored: Research, Undergraduate Name: Yuki Yang, Description: McNair Scholar |
| 2022 -2023 | Number of Undergraduate(s) : 2, Description: Research Mentoring |
| 2022-2025 | Activity Advised/Mentored: Research, Undergraduate Name: Alexandra Naman, Description: APS Summer Research Fellowship, Award: Best Undergraduate Research Award APS Summit Long Beach, CA 2024 |
| 2024 -Ongoing | Number of Undergraduate(s) : 2, Description: Research Mentoring |

Graduate Advising

Doctoral Candidate: Jacob Kendra Year 4

Present (Anticipated May 2026)

Role: Mentor and Chair

Awards:

1. Huffines Student Travel Grant (2025)
2. Carl Storm Fellowship award (2025)
3. Lowman Heep award (2025)
4. Texas A&M College of Education & Human Development Graduate Research Grant Award Recipient (2025)
5. Texas Chapter of American College of Sports Medicine #1 Ranked Research Development Proposal (2025)
6. Texas A&M KNSM SEED Grant Award Recipient (2025)
7. Texas Chapter of American College of Sports Medicine SRDA Grant Award Recipient (2025)
8. Huffines Institute Graduate Student Travel Award Recipient (2025)
9. American Society for Cell Biology National Conference Regenerative Medicine Section Abstract of Interest (2024)
10. Huffines Institute Graduate Student Research Grant Award Recipient (2024)
11. Texas A&M School of Education & Human Development Graduate Research Grant Award Recipient (2024)
12. American Physiology Summit Abstract of Distinction (2024)
13. Texas Chapter of American College of Sports Medicine Doctoral Poster Finalist (2024)
14. American Physiology Summit Abstract of Distinction (2023)
15. Huffines Institute Graduate Student Research Grant Award Recipient (2022)
16. Huffines Institute Graduate Student Travel Grant Award (2025)

Job Prospects:

- Interviewed with Karyn Esser at UF. Ranked 2nd out of over 200 applicants
- Invited for an in-person presentation for Post Doctoral Fellowship with Marcos Bamman (ranked 3rd nationally in 2019 for most NIH funding in cell biology), IHMC, Pensacola, FL. Oct. 2025 (*Accepted Offer*)
- Invited for an in-person presentation for Post Doctoral Fellowship with Elisa Gonzalez-Rothi, University of Florida, Gainesville, FL. Oct. 2025 (*given offer*)

Doctoral Student: Shadi Golpasandi Year 3

Present

Role: Mentor and Chair

Doctoral Student: Jiwei Hao *Year 1*

Present

Role: Mentor and Chair

Awards:

1. Jane and Collie Conoley Fellowship Fall 2025
2. Huffines Student Research Grant Recipient Fall 2025
- 3.

Doctoral Student Committee Member:

Amin Mohajeri, PhD

Graduated August 2025

Quan Zhang (PhD Candidate)

Present

Dillon Harris (PhD Student)

Present

Quintin Pigg (PhD Student)

Present

Bethany Guerra (2nd year)

Present

Champ Jones (PhD Student)

Present

Master's Student:

Chair Tsia Ying Graduated December 2025 [Hired in job of choice (Physical Therapist)]

Committee Member Champ Jones *Year 2*

Spring 2025

Publications, Conference Proceedings, Patents and Creative Products/Innovations

Patents: *denotes trainee

(2025) Morton, AB., Nghiem, PP., Kendra, JA.*, *Reacted Matrix (RM) for Dispersion of Stem Cells* (covers original biomaterial development and ability to disperse stem cells in large animals for over a month, permitting implantation and incorporation). U.S. Provisional Patent (No. 63/754,943) filed 2/6/2025 by the Texas A&M University System.

(2022) Morton, AB., Segal, SS., Brow, RK., Semon, J., *Biomaterial Compositions and Methods of Treatment* (covers original biomaterial development and treatment methods for a variety of muscle injuries and diseases) U.S. Full Patent (No. WO2023034523A1) filed 9/1/22 Filed by the University of Missouri, jointly assigned to Texas A&M System and allocated 20% of financial rights to Texas A&M System **(filed also in Canada, Europe, PacRim, and US)**

Journal Article: * denotes trainee, # denotes co-first author first author position denotes writer, last author position denotes laboratory director

Preprint, submitted, in preparation, ongoing, in development

1. **Morton AB**, Kendra JA*, Brow RK, Semon J, Alge D, Gaharwar A. (2026) Inorganic Biomaterials in Skeletal Muscle Regeneration. Review. (In Development)

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2. **Morton AB**[#], Nghiem PP[#], Kendra JA^{*}, Goodlet B, Mackey M,. (2026) Stem Cell Chaperone System for Dispersion of Stem Cells. (Ongoing)
3. Hao J^{*}, Kendra JA^{*}, Golpasandi S^{*}, **Morton AB**. (2026) TRIM Treatment in Injured Mouse TA Muscles Accelerates Underlying EDL Regeneration. (Ongoing)
4. **Morton AB**, Kendra JA^{*}, Golpasandi S^{*}, Mackey M, Russell H, Hendrie C, Chen K, Yentes JM, Selsby JT, Nghiem PP. (2026) Muscle Structure and Function is Enhanced in Becker Muscular Dystrophy Pigs Following Treatment with TRIM: a pilot study. (Ongoing).
5. Kendra JA^{*}, Hao J^{*}, Harris DR, Blatt RL, Naman AG^{*}, Goble SD^{*}, Garcia LD^{*}, Brow RK, **Morton AB**. (2025) Skeletal Muscle Regeneration is Accelerated Following Injection of Time Release Ion Matrix in Injured Mice. (Submitted Journal of Cachexia, Sarcopenia and Muscle). <https://doi.org/10.1101/2025.11.21.689759>
6. **Morton AB**, Kendra JA^{*}, Glancy B, Golpasandi S^{*}, Naman AG^{*}. (2025) *In situ* Quantification of Mitochondrial Morphology In Muscle and Terminal Schwann Cells. (In revision) Jove
7. **Morton AB**, Kendra JA^{*}, Golpasandi S^{*}, Mackey M, Russell H, Hendrie C, Chen K, Yentes JM, Selsby JT, Deutz NEP, Nghiem PP. (2025) Characterization of Gait Kinematics and Muscle Function in Becker Muscular Dystrophy Pigs: a pilot study. (In Review, Journal of Translational Research). <https://doi.org/10.1101/2025.10.10.681620>
8. Kendra JA^{*}, Naman AG^{*}, Blatt RL, Jones-Hall Y, Zingariello CD, Brow RK, Segal SS, **Morton AB**. Time Release Ion Matrix Regenerates Dystrophic Skeletal Muscle. Res Sq [Preprint]. (In Review, Muscle & Nerve) 2025 Mar 20:rs.3.rs-5968078. doi: 10.21203/rs.3.rs-5968078/v1. PMID: 40166018; PMCID: PMC11957216.

Completed/Published

1. Rahimi MR., **Morton A.B.**, Golpasandi H., Salih S.H. (2025) Short-Term CoQ10 Supplementation Reduces Markers of Cardiac Stress in Soccer Players Following Heavy Exercise: A Randomized Double-Blind Placebo-Controlled Trial. BMC Sports Science, Medicine and Rehabilitation (Accepted) November 24th
2. Jacobsen NL, Nguyen MA, **Morton AB**, Cornelison DD, Segal SS. (2025) Satellite Cell Ablation Limits Myofiber Regeneration but Not Angiogenesis Following Skeletal Muscle Injury. Microcirculation (Accepted) August 23rd
3. Tiper Y, Xie Z, Hofemeier A, Lad H, Lubner M, Krawetz R, Betz T, Zimmermann WH, **Morton AB**, Segal SS, Gilbert PM. (2025) Optimizing electrical field stimulation parameters reveals the maximum contractile function of human skeletal muscle microtissues. *Am J Physiol Cell Physiol*. Apr 1;328(4):C1160-C1176. doi: 10.1152/ajpcell.00308.2024. Epub 2025 Feb 28. PMID: 40019026. **Cited 6x (selected as a featured article in AJP-Cell June 2025)**
4. **Morton A. B.**, Jacobsen N. L., Dillar A., Kendra J. A.^{*}, Golpasandi S.^{*}, Cornelison D. D., Segal S. S., (2024) Inducible deletion of endothelial cell *Efnb2* delays capillary regeneration and attenuates myofibre reinnervation following myotoxin injury in mice. *Journal of Physiology*. August, 2024 DOI: 10.1113/JP285402 **Cited 5x**

Note: Additional citation published as an invited perspective paper of our impactful work: Chakkalakal JV. Contribution of vascular endothelium to the regeneration of neuromuscular junctions after degenerative injury to adult skeletal muscle. *J Physiol.* 2024 Oct;602(19):4701-4702. doi: 10.1113/JP287384. Epub 2024 Oct 2. PMID: 39355974.

5. Ryan P. J., Uranga S., Stanelle S. T., Lewis M. H., O'Reilly C. L., Cardin J. M., Deaver J. W., **Morton A. B.**, Fluckey J. D., (2024) The autophagy inhibitor NSC185058 suppresses mTORC1-mediated protein anabolism in cultured skeletal muscle. *Scientific Reports.* April 6, 2024
6. Jacobsen N. L., **Morton A. B.**, Segal S. S., (2023) Angiogenesis precedes myogenesis during regeneration following biopsy injury of skeletal muscle. *Skeletal Muscle.* February 14, 2023
Note: co first authors **cited 28x**
7. Ichinoseki-Sekine N., Smuder A. J., **Morton A. B.**, Hinkley J. M., Mor Huertas A., Powers S. K., (2021) Hydrogen sulfide donor protects against mechanical ventilation-induced atrophy and contractile dysfunction in the rat diaphragm. *Clin Transl Sci.* June 3, 2021.
8. **Morton A. B.**, Jacobsen N. L., and Segal S. S., (2021) Functionalizing biomaterials to promote neurovascular regeneration following muscle injury. *American Journal of Physiology-Cell Physiology* Jun 1, 2021. **Cited 12x**
9. Hall S. E., Ahn B., Smuder A. J., **Morton A. B.**, Hinkley J. M., Wiggs M. P., Sollanek K. J., Hyatt H., Powers S. K., (2021) Comparative efficacy of angiotensin II type I receptor blockers against ventilator-induced diaphragm dysfunction in rats. *Clinical Translational Science.* Nov. 22, 2021
10. Smuder A. J., Turner S. M., Schuster C. M., **Morton A. B.**, Hinkley J. M., Fuller D. D., (2020) Hyperbaric oxygen treatment following mid-cervical spinal cord injury preserves diaphragm muscle function. *International Journal of Molecular Science.* Sep. 30, 2020
11. Huertas A. M., **Morton A. B.**, Ichinoseki-Sekine N., Hinkley J. M., Smuder A. J., (2020) Modification of neuromuscular junction protein expression by exercise and doxorubicin. *Med Sci Sports Exerc.* Jul. 2020.
12. **Morton AB**, Norton CE, Jacobsen NL, Fernando, CA, Cornelison DDW, Segal SS. (2019) Barium chloride injures myofibers through calcium-induced proteolysis with fragmentation of motor nerves and microvessels. *Skeletal Muscle.* Nov. 6, 2019 **Cited 102x**

13. Smuder A. J., **Morton A. B.**, Hall S. E., Wiggs M. P., Ahn B., Wawrzyniak N. R., Sollanek K. J., Min K., Kwon O. S., Nelson W. B., Powers S. K., (2019) Effects of exercise preconditioning and HSP72 on diaphragm muscle function during mechanical ventilation. *J Cachexia Sarcopenia Muscle*. Apr. 10, 2019
14. Hinkley J. M., **Morton A. B.**, Ichinoseki-Sekine N., Huertas A. M., Smuder A. J., (2019) Exercise training prevents Doxorubicin-induced Mitochondrial Dysfunction of the Liver. *Med Sci Sports Exerc*. Jan 8
15. **Morton A. B.**, Smuder A. J., Wiggs M. P., Hall S. E., Ahn B., Hinkley J. M., Ichinoseki-Sekine N., Mor Huertas A., Ozdemir M., Yoshihara T., Wawrzyniak N. R., Powers S. K., (2019) Increased SOD2 in the diaphragm contributes to exercise-induced protection against ventilator-induced diaphragm dysfunction. *Redox Biology*. Jan. 20 402-414.
16. Powers S. K., **Morton A. B.**, Hyatt H., Hinkley M. J., (2018) The renin-angiotensin system and skeletal muscle. *Exercise and Sport Sciences Reviews*. DOI: 10.1249/JES
17. **Morton AB**, Mor Huertas A, Hinkley JM, Ichinoseki-Sekine N, Christou DD, and Smuder.AJ, (2018). Mitochondrial accumulation of doxorubicin in cardiac and diaphragm muscle following exercise preconditioning. *Mitochondrion*. Feb 2018 DOI: 10. 1016
18. Turley K, Rivas JD, Townsend JR, **Morton AB.**, (2017). Effects of caffeine on heart rate variability in boys. *Journal of Caffeine Research*. (2): 71-77
19. Sollanek K. J., Burniston J. G., Kavazis A. N., **Morton A. B.**, Wiggs M. P., Ahn B., Smuder A. J., Powers S. K., Global proteome changes in the rat diaphragm induced by endurance exercise training (2017) PLOS One., PONE-D-16-34299R2
20. Kavasis A.N., **Morton A. B.**, Hall S. E., Smuder A. J. Effects of doxorubicin on cardiac muscle subsarcolemmal and intermyofibrillar mitochondria. *Mitochondrion*, Nov 2016, DOI: 10.1016
21. Powers S. K., **Morton A. B.**, Ahn B., Smuder A. J., (2016) Redox Control of Skeletal Muscle Atrophy. *Free Radical Biology and Medicine*, Feb 2016, DOI: 10.1016
22. Smuder A.J., Gonzalez-Rothi E. J., Kwon O. S., **Morton A. B.**, Sollanek K. K., Powers S. K., Fuller D. D., (2015) Cervical spinal cord injury exacerbates ventilator-induced diaphragm dysfunction. *Journal of Applied Physiology*, Oct 2015, DOI: 10.1152
23. Holland A. M., Hyatt H. W., Smuder A. J., Sollanek K. J., **Morton A. B.**, Roberts M. D., Kavazis A. N., (2015) Influence of endurance exercise training on antioxidant enzymes, tight junction proteins, and inflammatory markers in the rat ileum. *BMC Research Notes*, Sep 2015, DOI: 10.1186

24. Kwon O.S., Smuder A. J., Wiggs M. P., Hall S. E., Sollanek K. J., **Morton A. B.**, Talbert E., Toklu H. Z., Tumer N., Powers S. K., (2015) AT1 Receptor blocker losartan protects against mechanical ventilation-induced diaphragmatic dysfunction. *Journal of Applied Physiology*, Sep 2015, DOI: 10.1152
25. Sollanek K. J., Smuder A. J., Wiggs M. P., **Morton A. B.**, Koch L. G., Britton S. L., Powers S. K., (2015). Role of intrinsic aerobic capacity and ventilator-induced diaphragm dysfunction. *Journal of Applied Physiology*. Jan 2015, DOI: 10.1152
26. Turley K, Eusse P, Thomas M, Townsend JR, **Morton AB.**, (2015). Effects of different doses of caffeine on anaerobic exercise in boys. *Ped. Exerc. Sci.* Feb. 27 (1), 50-6.
27. Townsend, J. R., Stout, J. R., **Morton, A. B.**, Jajtner, A. R., Gonzalez, A. M., Wells, A. J., Mangine, G. T., McCormack, W. P., Emerson, N. S., Robinson IV, E. H., Hoffman, J. R., Fragala, M. S., & Cosio Lima, L. (2013). Excess post-exercise oxygen consumption (EPOC) following multiple effort sprint and moderate aerobic exercise. *International Journal of Fundamental and Applied Kinesiology*, 45 (1) 155-165
28. Turley K.R., Rivas J.D., Townsend J.R., **Morton A.B.**, Kosarek J.W., and Cullum M.G. (2012). Effects of caffeine on anaerobic performance in boys. *Ped. Exerc. Sci.* (2):210-9.

Conference Proceedings: * denotes trainee, first author position is lead writer, last author position describes the corresponding author and lab director

Completed/Published

1. Naman, A.*, Kendra, J.*, Brow, R., Segal, S., **Morton, A.**, (2024) TRIM Enhances Angiogenesis in Dystrophic muscle 140 Days Post Treatment. The APS Journal (Physiology)
2. Kendra, J.*, Naman, A.*, Brow, R., Segal, S., **Morton, A.**, (2024) TRIM Enhances Angiogenesis in Dystrophic muscle 70 Days Post Treatment. The APS Journal (Physiology)
3. Kendra, J.*, Golpasandi, S.*, Naman, A.*, Othman, M., Kim, J., Rauth, R., Moustafa K., Lawler, J., **Morton, A.**, (2024) Micronized Biocompatible Ceramic Promotes Muscle Derived IL-6 Release in Disuse. (American College of Sports Medicine)
4. Golpasandi, S.*, Kendra, J.*, Naman, A. *, **Morton, A.**, (2024) Quantification of Mitochondrial Morphology in Whole Muscle. (American College of Sports Medicine)
5. Harris, D., Kendra, J. *, Pigg, Q., Golpasandi, S. *, Naman, A. *, Garcia, A., Yoshimura, D., **Morton, A.**, Janini Gomes, M., (2024) Maximal Isometric Torque in Skeletal Muscle of Endurance Trained Rats with Heart Failure. (American College of Sports Medicine)

6. Kendra J.*, Blatt R., Brow R. K., Segal S. S., **Morton A. B.**, (2023) Biomaterial Enhancement of Dystrophic Muscle. The APS Journal (Physiology)
7. **Morton A. B.**, Jacobsen N. L., Diller A., Cornelison D. D., Segal S. S., (2023) Inducible deletion of endothelial cell efnb2 attenuates neuromuscular regeneration in mouse skeletal muscle. The APS Journal (Physiology)
8. **Morton A. B.**, Jacobsen N. L., Cornelison D. D., Segal S. S., (2022) Which Comes First: Angiogenesis or Myogenesis Following Punch Biopsy Injury? The FASEB Journal 36
9. Tiper Y., **Morton A. B.**, Segal S. S., Gilbert P. M., (2022) Optimization of the Electrical Stimulation Parameters for Micro-muscles Engineered from Human Primary Myoblasts. Tissue Engineering Part A, 28. 390-391
10. **Morton A. B.**, Cornelison D. D., Segal S. S., (2020) Effective reinnervation of skeletal muscle is impaired by disrupting microvascular regeneration following acute injury. The FASEB Journal 34 (1_supplement)
11. **Morton A. B.**, Smuder A. J., Hyatt H. W., Hinkley J. M., Ichinoseki-Sekine N., Mor A., Powers S. K., (2018) Overexpression of SOD2 in the diaphragm provides partial protection against ventilator-induced diaphragm atrophy and contractile dysfunction. The FASEB Journal 32 (1_supplement), 856.15-856.15
12. **Morton A. B.**, Smuder A. J., Hall S. E., Wiggs M. P., Powers S. K., (2017) Oral administration of BGP-15 significantly increases HSP72 expression and attenuates ventilator-induced diaphragm dysfunction. The FASEB Journal 31 (1_supplement), 1021.23-1021.23
13. Turner S. M., Schuster C. M., **Morton A. B.**, Hinkley J. M., Fuller D. D., Smuder A. J., (2017) Hyperbaric oxygen treatment following mid-cervical spinal contusion injury-diaphragm outcomes. The FASEB Journal 31 (1_supplement), 873.5-873.5
14. Hinkley J. M., **Morton A. B.**, Smuder A. J., Powers S. K., (2017) Differential Expression of the Angiotensin II Type 1 Receptor Amongst Various Skeletal Muscle Types. The FASEB Journal 31 (1_supplement), 1021.2-1021.2
15. Ichinoseki-Sekine N., Yoshihara T., Tsuzuki T., **Morton A. B.**, Hinkley J. M., (2017) Intermittent Spontaneous Breathing Prevents Mechanical Ventilation-Induced Diaphragm Atrophy and Dysfunction. The FASEB Journal 31 (1_supplement), lb770-lb770

16. Smuder A.J., **Morton A. B.**, Hall S. E., Ahn B., Wiggs M. P., Wawrzyniak N. R., Powers S. K., (2016) HSP72 is required for exercise-induced protection against ventilator-induced diaphragm dysfunction. The FASEB Journal, Jan 2016 Supplement 1 volume 30.
17. **Morton A. B.**, Smuder A. J., Wiggs S. E., Hall S. E., Wawrzyniak N. R., Powers S. K., (2016) Exercise-induced protection against ventilator-induced diaphragm atrophy is dependent upon increased diaphragmatic levels of manganese superoxide dismutase. The FASEB Journal, Jan 2016 Supplement 1 volume 30.
18. Hall S. E., Smuder A. J., Wiggs M. P., **Morton A. B.**, Sollanek K. J., Powers S. K., (2016) Angiotensin II type 2 receptor contributes to ventilator-induced diaphragm dysfunction. International Journal of Exercise Science: Conference Proceedings volume 8 issue 4.
19. Turley K. R., Townsend J. R., Rivas J. D., **Morton A. B.**, Kosarak J. W., Cullum M. G., (2015) Effects of caffeine on heart rate variability in young boys: 1136 board# 8 May 28, 8:00 AM-10:00 AM. Medicine and Science in Sports and Exercise, volume 47 issue 5S.
20. Sollanek K. J., **Morton A. B.**, Smuder A. J., Burniston J. G., Powers S. K., (2015) Adaptation of the rat diaphragm in response to endurance exercise training: 1667 board # 12 May 28, 3:30 PM-5:00 PM. Medicine and Science in Sport and Exercise, volume 47 issue 5S.
21. Hall S. E., **Morton A. B.**, Smuder A. J., Wiggs M. P., Sollanek K. J., Powers. S. K., (2015) Stretch activation of angiotensin II type 1 receptor contributes to ventilator-induced diaphragm dysfunction. The FASEB Journal, Jan 2016 supplement 1 volume 29.
22. Holland A. M., Hyatt H., Smuder A. J., **Morton A. B.**, Roberts M., Kavazis A., (2015) Effects of endurance exercise training on gastrointestinal barrier. The FASEB Journal, Jan 2016 supplement 1 volume 29.
23. **Morton A. B.**, Townsend J. R., Moore H., Cosio-Lima L., (2012) A comparison of EMG activity between dumbbell bench, barbell bench, and vertical chest press. Medicine and Science in Sport and Exercise, volume 44.
24. Turley K. R., Eusse P., Thomas M., Townsend J. R., **Morton A. B.**, Phillips B. L., Cullum M. G., (2011) Effect of different doses of caffeine on anaerobic performance in young boys: 3095 board # 58 8:00 AM-9:30 AM Medicine and Science in Sport and Exercise, volume 43 issue 5.
25. Turley K. R., Townsend J. R., Rivas J. D., **Morton A. B.**, Kosarak J. W., Cullum M. G., (2010) Effect of caffeine on anaerobic performance in young boys: 1914 board # 43 June 3 8:00 AM-9:30 AM Medicine and Science in Sport and Exercise, volume 42 issue 5.

Service

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|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Spring 2019 | Reviewer for Microcirculation, Regionality: National |
| Summer 2019 | Reviewer for Frontiers in Physiology, Regionality: National |
| Spring 2020 | Reviewer for Royal Society of Open Science, Regionality: National |
| Spring 2020-Spring 2020 | Committee Name/Activity: CVRD Planning Committee, Organization: University of Missouri, Service Type: University, Service Role: Committee Member, Regionality: Local |
| Summer 2020 | Reviewer for Journal of Critical Care Research and Practice, Regionality: National |
| Fall 2020 | Reviewer for AJP-Heart, Regionality: National |
| Fall 2021 | Reviewer for Neural Regeneration Research, Regionality: National |
| Summer 2022 | Reviewer for Annals of Palliative Medicine, Regionality: National |
| Fall 2022 | Reviewer for Bosnian Journal of Basic Medical Science, Regionality: National |
| Fall 2022 | Poster Judge: Texas Junior Academy of Science |
| Fall 2022 | Reviewer for Biology, Regionality: National |
| Spring 2023 | Poster Judge: Texas Junior Academy of Sciences |
| Spring 2023-Spring 2023 | Committee Name/Activity: Graduate Student Space Committee, Organization: Texas A&M University, Service Type: Department, Service Role: Committee Member, Regionality: Local |
| Spring 2023-Spring 2023 | Committee Name/Activity: Graduate Student Awards Committee, Organization: Texas A&M University, Service Type: Department, Service Role: Committee Member, Regionality: Local |
| Spring 2023 | Reviewer for Connective Tissue Research, Regionality: National |

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| Spring 2023-Present | Biotechnology Advising for Bioramics, Regionality: National, Role: Board Member |
| Summer 2023 | Reviewer for eCells & Materials, Regionality: National |
| Fall 2023 | Committee Name/Activity: TJSHS Life Science Abstract Reviewer, Organization: TJSHS, Service Type: Community, Service Role: Reviewer, Regionality: Regional |
| Fall 2023-Spring 2024 | Committee Name/Activity: Huffines Director Search Committee, Organization: Texas A&M University, Service Type: College, Service Role: Committee Member, Regionality: Local |
| Spring 2024 | ADM Grant Reviewer, Organization: Texas A&M University, Regionality: Local |
| Spring 2024 | Committee Name/Activity: Undergraduate Curriculum Committee, Organization: Texas A&M University, Service Type: College, Service Role: Committee Member, Regionality: Local |
| Spring 2024 | Committee Name/Activity: A1 Committee, Organization: Texas A&M University, Service Type: Departmental, Service Role: Committee Member, Regionality: Local |
| Summer 2024 | Reviewer for AJP Regulatory, Integrative, and Comparative Physiology, Regionality: National |
| Fall 2024 | Reviewer for Journal of Cachexia, Sarcopenia, and Muscle, Regionality: National |
| Fall 2024 | Reviewer for the Journal of Physiology, Regionality: National |
| Fall 2024 | Committee Name/Activity: Seed Grants, Organization: Texas A&M University, Service Type: Departmental, Service Role: Reviewer, Regionality: Local |
| Fall 2024 | Committee Name/Activity: Engineering Senior Design Project Mentor, Texas A&M University, Service Type: University, Service Role: Life Science Mentor, Regionality: Local |
| Fall 2024 | Committee Name/Activity: Senior Design Project Health Science Advisor, Organization: Department of Mechanical Engineering, Texas A&M University, Service Type: Advisor, Regionality: Local |

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| Fall 2024 | Committee Name/Activity: Targeted Proposal, Organization: Texas A&M University, Service Type: System, Service Role: Reviewer, Regionality: Local |
| Spring 2025 | Committee Name/Activity: Aggieland Saturday: Texas A&M University, Service Type: Department, Service Role: Presenter, Regionality: Local |
| Spring 2025 | Reviewer for Journal of Cachexia, Sarcopenia, and Muscle, Regionality: National |
| Spring 2025 | Committee Name/Activity: A1 Committee, Organization: Texas A&M University, Service Type: Departmental, Service Role: Committee Member, Regionality: Local |
| Spring 2025 | Committee Name/Activity: Poster Judge, Organization: Texas Institute of Musculoskeletal Sciences, Service Type: College, Service Role: Poster Judge, Regionality: Regionally |
| Fall 2025 | Committee Name/Activity: Poster Judge, Organization: Texas A&M Annual Postdoctoral Research Symposium, Service Type: University, Service Role: Poster Judge, Regionality: Local |
| Fall 2025 | Reviewer for Journal of Cachexia, Sarcopenia, and Muscle, Regionality: National |
| Fall 2025 | Seminar Speaker Host: Dr. Kleiton Silva from Cooper School of Medicine, NJ |
| Fall 2025 | Reviewer Targeted Proposal Grants, Regionality: System Level |
| Fall 2025 | Reviewer for the Journal of Biomedical Materials Research, Regionality: National |
| Fall 2025 | Dean's "Tiger Team" for Entrepreneurship in the CEHD, Regionality: College Level |

Professional Affiliations and Memberships

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| 2011-2014 | Organization Name: NSCA, Membership Status: Former Member |
| 2012-2014 | Organization Name: NSCA, Membership Status: Former Member |

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| 2014-Present | Organization Name: American Physiological Society, Membership Status: Member |
| 2020-Present | Organization Name: Microcirculatory Society, Membership Status: Member |
| 2023-Present | Organization Name: Bioramics, LLC, Chief Science Officer |

Professional Presentations/Invited Speaker/Media

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| Summer 2012 | Date: 2012-01-06, Presentation Title: A Comparison of EMG Activity Between Dumbbell Bench, Barbell Bench and Vertical Chest Press, Location (ACSM, San Francisco, CA, USA) Role: Poster Presentation: National |
| Spring 2015 | Date: 2015-13-02, Presentation Title: Angiotensin II to Prevent Skeletal Muscle Atrophy, Location (Southwest ACSM, Fort Lauderdale, FL, USA) Role: Oral Presentation: National |
| Spring 2016 | Date: 2016-05-04, Presentation Title: Exercise-induced protection against ventilator-induced diaphragm atrophy is dependent upon increased diaphragmatic levels of manganese superoxide dismutase, Location (Experimental Biology, San Diego, CA, USA) Role: Poster Presentation: National |
| Spring 2017 | Date: 2017-25-04, Presentation Title: Oral administration of BGP-15 significantly increases HSP72 expression and attenuates ventilator-induced diaphragm dysfunction, Location (Experimental Biology, Chicago, IL, USA) Role: Poster Presentation: National |
| Summer 2017 | Date: 2017-01-08, Presentation Title: Is SOD2 the key to exercise protection against VIDD?, Location (Seminar, Columbia, MO, USA) Role: Invited Oral Presentation: National |
| Spring 2018 | Date: 2018-24-04, Presentation Title: Overexpression of SOD2 in the diaphragm provides partial protection against ventilator-induced diaphragm atrophy and contractile dysfunction., Location (Experimental Biology, San Diego, CA, USA) Role: Poster Presentation: National |
| Fall 2020 | Date: 2020-10-11, Presentation Title: Disorganized Capillary Regeneration Coincides with Impaired Myofiber Reinnervation Following Skeletal Muscle Injury, Location (APS IPE, Online for COVID) Role: Poster Presentation: National |
| Fall 2021 | Date: 2021-19-11, Presentation Title: Which comes first: angiogenesis or myogenesis following skeletal muscle injury?, |

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| | Location (Health Science Research Day, Columbia, MO, USA) Role: Poster Presentation: Regional |
| Spring 2022 | Date: 2022-26-01, Presentation Title: Muscle Degeneration and Regeneration: Capturing both sides of the coin to combat soft tissue injury and disease, Location (Texas A&M University, College Station, TX, USA) Role: Invited Oral Presentation: Regional |
| Spring 2022 | Date: 2022-01-03, Presentation Title: Nerve Regeneration. What do the Blood Vessels Have to Say About it?, Location (CVRD, Columbia, MO, USA) Role: Invited Oral Presentation: Regional |
| Spring 2022 | Date: 2022-03-04, Presentation Title: Which comes first, angiogenesis or myogenesis following biopsy punch in skeletal muscle?, Location (Experimental Biology, San Diego, CA, USA) Role: Poster Presentation: National |
| Fall 2022 | Date: 2022-21-10, Presentation Title: Biomaterial Enhancement of Dystrophic Muscle, Location (Texas A&M University, College Station, TX, USA) Role: Invited Oral Presentation: Local |
| Fall 2022 | Date: 2022-01-11, Presentation Title: Biomaterial Enhancement of Dystrophic Muscle, Location (University of Missouri, Columbia, MO, USA) Role: Invited Oral Presentation: National |
| Spring 2023 | Date: 2022-03-04, Presentation Title: Inducible deletion of endothelial cell efnb2 attenuates neuromuscular regeneration in mouse skeletal muscle, Location (APS Summit, Long Beach, CA, USA) Role: Poster Presentation: National |
| Summer 2023 | Date: 2023-03-08, Presentation Title: Regenerating Soft Tissue in Health and Disease, Location (Texas A&M University, College Station, TX, USA) Role: Invited Oral Presentation: Local |
| Fall 2024 | Date: 2024-14-11, Presentation Title: Biomaterials as Drugs, the New Kids on the Block, Location (Texas A&M University, College Station, TX, USA) Role: Invited Oral Presentation: Local |
| Fall 2024 | Date: 2024-02-12, Presentation Title: Peripheral Nerve Regeneration: What do the blood vessels have to say about it?, Location (Cooper Medical School, Camden, NJ, USA) Role: Invited Oral Presentation: National |
| Spring 2025 | Date: 2025-02-07, Virtual Presentation Title: Novel Approaches to Muscle Diseases, Location (Stanford University, Stanford, CA, |

USA) Role: **Invited by Solve FSHD Co-Founder Neil Carmata for Oral Presentation: National**

Spring 2025

Date: 2025-05-14, Presentation Title: Biomaterials as Drugs to Regenerate Skeletal Muscle, Location (Texas A&M University, College Station, TX, USA) Role: **Invited Oral Presentation: Local**

Summer 2025

Date: 2025-06-11, Presentation Title: Biomaterials as Drugs to Regenerate Skeletal Muscle, Location (Barga, Italy) Role: **Invited, Sponsored, Oral Presentation: International**

Summer 2025

Date: 2025-07-24, Presentation Title: Next-Gen Materials for Muscle Repair, Location (Texas A&M University, College Station, TX, USA) Role: **Invited by the AVPR to present for TAMU Innovation Connect Event: Local**

Grants & Contracts

| Title | Collaborators | Funding Agency-Sponsor | Start Date | End Date | Total Funding | Status | % Effort Contributed | Internal / External | Research \$ attributed to faculty member |
|------------------------------------------------------------------------|----------------------------|------------------------|-------------|-------------|----------------|------------|----------------------|---------------------|------------------------------------------|
| Mechanisms of Neurovascular Crosstalk in Skeletal Muscle Regeneration | Steven Segal | NIH | Fall 2019 | Fall 2021 | \$44,000.00 | Not Funded | 0.00 | External | \$44,000 |
| Mechanisms of Neurovascular Crosstalk in Skeletal Muscle Regeneration | Steven Segal, D Cornelison | NIH | Fall 2019 | Fall 2021 | \$122,836.00 | Not Funded | 100.00 | External | \$122,836 |
| Mechanisms of Neurovascular Crosstalk in Skeletal Muscle Regeneration | Steven Segal, D Cornelison | APS | Fall 2019 | Fall 2020 | \$50,000.00 | Funded | 100.00 | External | \$50,000 |
| Mechanisms of Neurovascular Crosstalk in Skeletal Muscle Regeneration | Steven Segal, D Cornelison | NIH | Fall 2020 | Fall 2022 | \$122,836.00 | Not Funded | 100.00 | External | \$122,836 |
| Mechanisms of Neurovascular Crosstalk in Skeletal Muscle Regeneration | | NIH LRP | Fall 2020 | Fall 2022 | \$44,000.00 | Funded | 100.00 | External | \$44,000 |
| Enhancing Myovascular Regeneration with a Novel Biomaterial | | NIH | Fall 2023 | Fall 2025 | \$132,756.00 | Not Funded | 33.00 | External | \$132,756 |
| Biomaterial Enhancement of Dystrophic Muscle | Peter Nghiem, Richard Brow | DoD | Fall 2023 | Fall 2025 | \$492,422.00 | Not Funded | 33.00 | External | \$492,422 |
| Biomaterial Enhancement of Dystrophic Muscle | Peter Nghiem, Richard Brow | NIH | Fall 2023 | Fall 2025 | \$418,000.00 | Not Funded | 33.00 | External | \$418,000 |
| Biomaterial Enhancement of Dystrophic Muscle | Peter Nghiem, Richard Brow | NIH | Fall 2023 | Fall 2025 | \$33,000.00 | Not Funded | 0 | External | \$33,000 |
| Bioactive Ceramic/Hydrogel Composites for Musculoskeletal Regeneration | John Lawler, Danny Alge | DoD | Summer 2024 | Summer 2027 | \$1,099,384.00 | Not Funded | 10 | External | \$109,938 |
| Redox Regulation of RANKL in Duchenne Muscular Dystrophy | John Lawler | DoD | Summer 2024 | Summer 2026 | \$789,092.00 | Not Funded | 10 | External | \$78,909 |

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| Inducing mammalian limb regeneration with FGF2 and BMP2 | John Lawler | NIH | Summer 2024 | Summer 2029 | \$2,957,856.00 | Not Funded | 10 | External | \$295,785 |
| Micronized Bioactive Ceramic Particles for Treatment of Limb Girdle Muscle Dystrophy | Peter Nghiem | NIH | Summer 2024 | Summer 2029 | \$2,305,500.00 | Not Funded | 33 | External | \$2,305,500 |
| Redox Regulation of RANKL in Duchenne Muscular Dystrophy | John Lawler | NIH | Fall 2024 | Fall 2029 | \$3,672,231.00 | Not Funded | 10 | External | \$367,223 |
| Effectiveness and Toxicology of Dystrophix in a Large Animal Model of Muscle Dystrophy | Peter Nghiem, Mariana Janini Gomes | TAMU System | Fall 2023 | Fall 2025 | \$495,972 | Funded | 32.9 | Internal | \$247,986 |
| Micronized Ceramic Mitigation of Unloading-induced Atrophy in Skeletal Muscle: Mechanotransductive Mechanisms | John Lawler | NASA | Spring 2025 | Spring 2026 | \$149,903.00 | Not Funded | 10 | External | \$14,930 |
| Regulation of Ghrelin Receptor-Mediated Inflamm-aging and Sarcopenia | John Lawler | NIH | Summer 2025 | Summer 2030 | \$3,636,530.00 | Not Funded | 10 | External | \$363,653 |
| Adversarial Role of RANKL and SIRT1 in Unloading-induced Atrophy of Skeletal Muscles | John Lawler | NIH | Summer 2025 | Summer 2030 | \$3,704,613.00 | Not Funded | 10 | External | \$370,461 |
| TRIM/Hydrogel Composites for Connective Tissue Regeneration and Hypertrophy | John Lawler | DoD | Summer 2025 | Summer 2029 | \$1,699,524.00 | Not Funded | 10 | External | \$169,952 |
| Time Release Ion Matrix (CoO-TRIM) Material to Promote Therapeutic Delivery in DMD | Peter Nghiem | DoD | Summer 2025 | Summer 2027 | \$517,562.00 | Not Funded | 20 | External | \$517,562 |
| Determining Sex- and Cell-Specific Differences in Composite Tissue Regeneration Following Projectile Injury | James Carson, Christopher Woodman | DoD | Fall 2025 | Fall 2028 | \$749,979.00 | Not Funded | 19 | External | \$749,979 |

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| Effectiveness and Toxicology of Dystrophin in a Large Animal Model of Muscle Dystrophy | | NIH LRP | Fall 2025 | Summer 2026 | \$20,069.43 | Funded | 100 | External | \$20,069.43 |
| Determining cell-specific mechanisms that drive aberrant neuromuscular regeneration in Down Syndrome | Yuming Lei, Deana Kennedy, Lindsay Dawson | NIH | Fall 2025 | Fall 2030 | \$1,828,395.00 | Not Funded | 25 | External | \$1,828,395 |
| Contribution of Neurovascular Signaling in Sex-Dependent Toxicity from Chemotherapy | James Crson, Christopher Woodman, Richard Brow | NIH | Spring 2026 | Spring 2031 | \$1,874,925.00 | Submitted | 25 | External | \$1,828,395 |
| Contribution of Terminal Schwann Cell Signaling in Sex-Dependent Toxicity from Chemotherapy | James Carson | NIH | Fall 2025 | Summer 2027 | \$100,000 | Scored pending | 90 | External | \$143,309 |
| Leveraging Bioreactors to Construct Chaperone Materials for "Super-Dispersion" of Stem Cells | Peter Nghiem, Fei Liu | NIH | Summer 2026 | Spring 2029 | \$1,155,000.00 | Submitted | 24 | External | \$1,155,000.00 |
| Solve FSHD Using Bioreacted Microparticles to Chaperone Stem Cells Through "Super-Dispersion" and Implantation | Peter Nghiem, Fei Liu | Solve FSHD | Fall 2025 | Fall 2027 | \$300,000 | Submitted | 20 | External | \$300,000 |
| Systemic Administration of the Novel Rare Pediatric Disease Designated Drug CoO-TRIM | Peter Nghiem | DoD | Spring 2026 | Fall 2028 | \$350,000 | Submitted | 25 | External | \$350,000 |
| Reacted matrix to super-disperse stem cells in tissues | Peter Nghiem, Fei Liu | DoD | Spring 2026 | Fall 2028 | \$398,475 | Submitted | 25 | External | \$398,475 |
| Mitochondrial Replacement Therapy for Duchenne Muscular Dystrophy | Akhilesh Gaharwar | DoD | Spring 2026 | Fall 2028 | \$500,000 | Submitted | 10 | External | \$500,000 |
| Effect of Reprieve on Terminal Schwann Cells | | Regenesis LLC | Spring 2026 | Fall 2026 | \$56,346 | Funded | 100 | External | \$56,346 |

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| Reacted matrix to super-disperse stem cells in tissues | Peter Nghiem, SCRM Bio LLC | NIH STTR FastTrack | Spring 2026 | Fall 2029 | \$1,870,114 | Submitted | 20 | External | \$1,870,114 |
| Reacted matrix to super-disperse stem cells in tissues | Peter Nghiem, Fei Liu | TAMU ADM | Summer 2026 | Spring 2028 | \$300,000 | Submitted | 50 | Internal | \$300,000 |
| Novel Injectable Stem Cell Chaperone System for Musculoskeletal Disease | Peter Nghiem, Fei Liu | NIH | Summer 2026 | Spring 2031 | \$3,870,000 | Submitted | 30 | External | \$3,870,000 |
| Contribution of Terminal Schwann Cell Signaling in Sex-Dependent Toxicity from Chemotherapy | James Carson | TAMU Grants on the Edge | Spring 2026 | Fall 2026 | \$25,000 | Submitted | 90 | Internal | \$25,000 |