Aaron B. Morton, Ph.D.

Curriculum Vitae (rev. 11/14/2024)

PERSONAL INFORMATION

Office Address

Texas A&M University
Department of Kinesiology and Sport Management
2929 Research Pkwy. Gibb Gilchrist Building Office 314
College Station, TX 77845

Email

amorton@tamu.edu

Phone (office)

979-862-1181

Websites

LinkedIn - Morton
ResearchGate - Morton

EDUCATION

Institution	Major	Degree	Date
University of Missouri	Microcirculation	Postdoc	July 2022
University of Florida	Exercise Physiology	Ph.D.	May 2018
University of West Florida	Exercise Science	M.S.	May 2013
Harding University	Exercise Science	B.S.	May 2010

EMPLOYMENT HISTORY

Assistant Professor Dept. Kinesiology Texas A&M University	Aug 2022-Present
Postdoctoral Fellow Dept. MPP University of Missouri	June 2018-July 2022
Research Assistant for the University of Florida	May 2016-May 2018
Graduate Assistant for the University of Florida	Aug 2013-May 2016
Adjunct Instructor for the University of West Florida	May 2012-May 2013
Graduate Assistant for the University of West Florida	Aug 2010-May 2012
Adjunct Instructor for Pensacola State Collage	May 2011-Aug 2011
Adjunct Instructor for the University of West Florida	May 2011-Aug 2011

PROFESSIONAL SOCIETIES

2013-	American Physiological Society
2018-	Microcirculatory Society
2011-2014	American College of Sports Medicine
2010-2013	National Strength and Conditioning Association

HONORS

Voices of Impact Invited Speaker	2024
American Physiological Society SURF Research Fellowship Host	2024
Microcirculatory Society Pappenheimer Postdoctoral Travel Award	2022
Health Science Research Day Basic Science poster award winner	2021
American Physiological Society IPE best poster award winner	2020
Cardiovascular Day poster award winner	2020
University of Missouri Provost's Scholar Award	2019-2020
Neuromuscular Plasticity Summit poster award	2018

NIH T32 Neuromuscular Plasticity Pre-doctoral fellowship 2016-2018
Jane Adams Edmonds Endowed PhD Fellowship University of Florida 2013
UWF Exercise Science Graduate Student of the Year 2012

GRANTS SUBMITTED AND PENDING

1) Determining cell-specific mechanisms that drive aberrant neuromuscular regeneration in Down Syndrome
   Morton PI, 25% Effort – September 2025 – August 2030
   $1,891,127
   National Institutes of Health

2) Determining Sex- and Cell-Specific Differences in Composite Tissue Regeneration Following Projectile Injury
   Morton PI, 19% Effort – April 2025 – March 2028
   $534,272
   Department of Defense, 1400 Defense Pentagon, Washington, DC 20301-1400
   Investigation of sex differences in composite tissue regeneration following projectile injury and therapeutic development to promote regeneration. THIS APPLICATION

3) Time Release Ion Matrix (CoO-TRIM) Material to Promote Therapeutic Delivery
   Morton PI, 24.5% Effort – March 2025-February 2027
   $350,000
   Department of Defense, 1400 Defense Pentagon, Washington, DC 20301-1400
   Investigating use of FDA RPD designated compound CoO-TRIM as a combination therapy to enhance therapeutic delivery. NO OVERLAP

4) TRIM/Hydrogel Composites for Connective Tissue Regeneration and Hypertrophy
   Lawler PI, Morton Co-I, 10% Effort – Jan 2025 – Dec 2027
   $1,147,320
   Department of Defense, 1400 Defense Pentagon, Washington, DC 20301-1400
   Investigating connective tissue regeneration using combination TRIM/Hydrogel NO OVERLAP

5) Adversarial Role of RANKL and SIRT1 in Unloading-induced Atrophy of Skeletal Muscles
   Lawler PI, Morton Co-I, 10% Effort – Jan 2025 – Dec 2029
   $2,498,824
   National Institutes of Health, 9000 Rockville Pike, Bethesda, MD 20892
   Investigating RANKL and SIRT1 through two commercially available receptor agonists to improve skeletal muscle atrophy. NO OVERLAP

6) The Ghrelin Receptor Paradox and RANKL Regulation of Age-Related Myopathy
   Lawler PI, Morton Co-I, 10% Effort – Jan 2025 – Dec 2029
   $2,497,656
   National Institutes of Health, 9000 Rockville Pike, Bethesda, MD 20892
   Unraveling interactions between Ghrelin Receptor and RANKL to reduce sarcopenia. NO OVERLAP

7) Micronized Ceramic Mitigation of Unloading-Induced Atrophy in Skeletal Muscle: Mechanotransductive Mechanisms
   Lawler PI, Morton Co-I, 10% Effort – Jan 2025 – Dec 2025
   $98,297
   National Aeronautics and Space Administration, 300 Hidden Figures Way SW, Washington, DC 20546
   Using stressed cells and TRIM to mitigate unloading-induced atrophy. NO OVERLAP

GRANTS AUTHORED AND AWARDED

TAMU Advancing Discovery to Market Morton (PI) 2023-2025

Effectiveness and Toxicology of Dystrophix in a Large Animal Model of Muscle Dystrophy
Total Direct Costs: $495,972
Role: Principal Investigator

TAMU Catapult Award — Janini-Gomes (PI) — 2023-2024
Exercise-Induced Myokines in Cardiac Cachexia
Total Costs: $30,000
Role: Co-Investigator

Coulter Biomedical Accelerator — Segal (PI) — 2021-2023
Timed-Release Ion Matrix for Treatment of Muscular Dystrophy
Total Costs: $99,987
Role: Grant Author and Designated Project Leader

NIH Loan Repayment Award for Pediatric Research — Morton (PI) — 2020-2022
Mechanisms of Neurovascular Crosstalk in Skeletal Muscle Regeneration

APS Postdoctoral Fellowship — Morton (PI) — 2019-2020
Mechanisms of Neurovascular Crosstalk in Skeletal Muscle Regeneration
Total Costs: $50,000
Role: Principal Investigator

PATENTS

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. 63/260,858) filed 9/1/22

SERVICE

Reviewing Activity:
Journal of Physiology
Journal of Cachexia, Sarcopenia and Muscle
American Journal of Physiology – Regulatory, Integrative and Comparative Physiology
eCells & Materials
Connective Tissue Research
Bosnian Journal of Basic Medical Science
Biology
Neural Regeneration Research
Journal of Critical Care Research and Practice
Royal Society Open Science
Frontiers in Physiology
American Journal of Physiology – Heart
Microcirculation
Annals of Palliative Medicine
Departmental Service:
Under Graduate Curriculum Committee Spring 2024
A1 Committee Member Spring 2024
Huffines Director Search Committee member Fall 2023
Graduate Student Space Committee Spring 2023
Graduate Scholarship Awards Committee Spring 2023
Judge: Texas Junior Academy of Science Spring 2023
Poster Judge: Texas Junior Academy of Science Fall 2022
Cardiovascular Research Day 2020 planning committee member

TEACHING

Texas A&M University

KINE 427 Therapeutic Principles	Fall 2024
KINE 685 Directed Studies	Fall 2024
KINE 691 Research	Fall 2024
KINE 427 Therapeutic Principles	Spring 2024
KINE 491 Research	Spring 2024
KINE 685 Directed Studies	Spring 2024
KINE 691 Research	Spring 2024
KINE 427 Therapeutic Principles	Fall 2023
KINE 691 Research	Fall 2023
KINE 685 Directed Studies	Fall 2023
KINE 491 Research	Fall 2023
KINE 427 Therapeutic Principles	Spring 2023
KINE 433 Exercise Physiology	Spring 2023
KINE 491 Research	Spring 2023
KINE 684 Professional Internship	Spring 2023
KINE 685 Directed Studies	Spring 2023
KINE 427 Therapeutic Principles	Fall 2022
KINE 491 Research	Fall 2022
KINE 685 Directed Studies	Fall 2022

Lipscomb University

Guest Lecture in Exercise Physiology	November 2020

University of Missouri

Guest Lecture NEP 1485 Careers in Exercise Physiology	March 2020

University of Florida

APK 2105 Physiology Lab	Jan 2014-May 2016
APK 2100 Anatomy Lab	Aug 2013-Dec 2013

University of West Florida

PEM 1116 Body Shaping	May 2012-May 2013
PET 2965 Exercise Testing and Rx Lab	Aug 2012-May 2013
PEM 1120 Cardio Weightlifting	Aug 2010-Aug 2012
Biomechanics Lab	Aug 2011-Dec 2011
PET 2965 Exercise Testing and Rx Lab	Aug 2010-May 2011

Pensacola State College

Body Shaping	May 2011-Aug 2011

STUDENT ADVISEMENT

Doctoral Candidate: Jacob Kendra *Year 4* Present
Role: Mentor
Awards: Huffines Graduate student research award 2022-2023
SEHD Graduate student research award 2023-2024
Huffines Graduate student research award 2024-2025

Doctoral Student: Shadi Golpasandi *Year 2* Present
Role Mentor

Master's Student: Tsia Ying *Year 2* Present

Undergraduate Students:
Alexandra Naman *Year 2* Present
Awards: APS Summer Research Internship 2023
APS Summitt Winner of 2024 SURF Research Competition
Others:
Nikitha Sudhagar
Seth Gobel

Undergraduate Honors Research and McNair Scholar Summer 2020-Spring 2021
Student: Yuki Yang
Project: Title: *Enhancement of Myovascular Regeneration with TRIM Following Volumetric Muscle Loss in Skeletal Muscle*
Role: Official Co-Mentor

PROFESSIONAL PRESENTATIONS

Invited Seminar: Cooper Medical School, Rowan University
Invitation by: Department of Biomedical Sciences
Date: December 2nd, 2024
Title: Peripheral Nerve Regeneration: What do the blood vessels have to say about it?

Invited Seminar: Texas A&M University
Invitation by: Department of Kinesiology and Sport Management
Date: November 14th, 2024
Title: Biomaterials as Drugs, the New Kids on the Block

Invited Seminar: Texas A&M University
Invitation by: Debakey Institute within the School of Medicine
Date: August 3rd, 2023
Title: Regenerating Soft Tissue in Health and Disease

Conference: American Physiological Society Summit 2023
Date: April 21st , 2023
Title: Inducible deletion of endothelial cell efnb2 attenuates neuromuscular regeneration in mouse skeletal muscle
Authors: Morton A. B., Jacobsen N. L., Diller A., Cornelison D. D., Segal S. S.
Oral/Poster: Poster

Invited Seminar: University of Missouri
Invitation by: Department of Medical Pharmacology and Physiology
Date: November 1st, 2022
Title: Biomaterial Enhancement of Dystrophic Muscle

Invited Seminar: Texas A&M University
Invitation by: Department of Kinesiology and Sport Management
Date: October 21st, 2022
Title: Biomaterial Enhancement of Dystrophic Muscle

Conference: Experimental Biology
Date: April 3, 2022
Title: Which comes first, angiogenesis or myogenesis following biopsy punch in skeletal muscle?

Authors: Morton A. B., Jacobsen N. L., Cornelison D. D., Segal S. S.
Oral/Poster: Poster Session

Conference: Cardiovascular Research Day 2022
Date: March 1, 2022
Authors: Morton A. B.
Oral/Poster: Oral Presentation

Invited Seminar: Texas A&M University
Invitation by: Department of Health and Kinesiology
Date: January 26th, 2022
Title: Muscle Degeneration and Regeneration: Capturing both sides of the coin to combat soft tissue injury and disease

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Conference: Health Science Research Day
Date: November 19, 2021
Title: Which comes first: angiogenesis or myogenesis following skeletal muscle injury?
Authors: Morton A. B., Jacobsen N. L., Cornelison D. D., Segal S. S.
Oral/Poster: Poster Session

Conference: American Physiological Society Integrated Physiology of Exercise
Date: November 10, 2020
Title: Disorganized Capillary Regeneration Coincides with Impaired Myofiber Reinnervation Following Skeletal Muscle Injury
Authors: Morton A. B., Jacobsen N. L., Arpke R., Costello A. D., Cornelison D. D., Segal S. S.
Oral/Poster: Poster Session

Conference: Experimental Biology (Accepted but canceled)
Date: April 4, 2020
Title: Effective Reinnervation of Skeletal Muscle is Impaired by Disrupting Microvascular Regeneration Following Acute Injury
Authors: Morton A. B., Cornelison D. D., Segal S. S.
Oral/Poster: Poster Session

Conference: Experimental Biology
Date: April 24, 2018
Title: Overexpression of SOD2 in the diaphragm provides partial protection against ventilator-induced diaphragm atrophy and contractile dysfunction.
Authors: Morton A. B., Smuder A. J., Hall S. E., Wiggs M. P., Hall S. E., Powers S. K.
Oral/Poster: Poster Session

Invited Seminar: the University of Missouri
Invitation by: Steven S. Segal
Date: August 1st 2017
Title: Is SOD2 the key to exercise protection against VIDD?

Conference: Experimental Biology
Date: April 25, 2017

Title: Oral administration of BGP-15 significantly increases HSP72 expression and attenuates ventilator-induced diaphragm dysfunction
Authors: Morton A. B., Smuder A. J., Hall S. E., Wiggs M. P., Hall S. E., Powers S. K.
Oral/Poster: Poster Session

Conference: Experimental Biology
Date: April 5, 2016
Title: Exercise-induced protection against ventilator-induced diaphragm atrophy is dependent upon increased diaphragmatic levels of manganese superoxide dismutase
Authors: Morton A. B., Smuder A. J., Wiggs M. P., Hall S. E., Ahn B., Wawrzniak N. R., Powers S. K.
Oral/Poster: Poster Session

Conference: Southeastern American College of Sports Medicine
Date: February 13, 2015
Title: Angiotensin II to Prevent Skeletal Muscle Atrophy
Authors: Powers, S.K., Wiggs, M.P., Smuder, A. J., **Morton, A. B**., Hall, S. E.
Oral/Poster: Symposium Session

Conference: American College of Sports Medicine National Conference
Date: June 1, 2012
Title: A Comparison of EMG Activity Between Dumbbell Bench, Barbell Bench and Vertical Chest Press
Authors: A. Morton, J Townsend, H. Moore, L. Cosio Lima
Oral/Poster: Poster Session

PUBLICATIONS

1. Tiper Y., **Morton A. B.**, Segal S. S., Gilbert P. M., (2025) Optimization of the Electrical Stimulation Parameters for Micro-muscles Engineered from Human Primary Myoblasts. Target Journal: *Tissue Engineering* (In Preparation)

2. Kendra J., Naman A., Brow R. K., Blatt R., Segal S. S., **Morton A.B.**, (2025) Bioactive Glass Enhances Dystrophic Muscle. Target Journal: Nature Biotechnology (In Preparation)

3. **Morton A. B.,** Naman A., Glancy B., Kendra J., (2025) *In Situ* Mitochondrial Network Morphology Relates to Muscle Function in Dystrophic Mice. Target Journal: *Mitochondrion* (In Progress)

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

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

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.

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

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 rate 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. Sollaneck 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.

PUBLISHED ABSTRACTS

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.