

Curriculum Vitae

Last Updated: April 2025

Stephen Decker, Ph.D., ACSM-CEP

Instructor, University of Utah

Postdoctoral Research Fellow, University of Utah

Salt Lake City, Utah

Email: decker.stephen.t@gmail.com

Phone: (713) 452-9516

Citizenship: United States (National), Ireland

EDUCATION

<u>Years</u>	<u>Degree</u>	<u>Institution (Area of Study)</u>
03/2023 - Present	Postdoctoral Fellow	University of Utah (Mitochondrial Bioenergetics, Renal Pathology)
07/2017 - 02/2023	Ph.D.	University of Massachusetts Amherst (Human Physiology, Mitochondrial Bioenergetics)
08/2014 - 08/2016	M.S.	Stephen F. Austin State University (Exercise Physiology, Human Performance)
08/2010 - 05/2014	B.S.	Stephen F. Austin State University (Kinesiology)

TRAINING

2025	Mental Health for Higher Ed and Healthcare (CITI), University of Utah
2025	Good Clinical Practice Course (CITI), University of Utah
2025	Biomedical Research Investigators and Key Personnel (CITI), University of Utah
2024	Office of Regulatory Affairs & Quality Training Program, Duke University
2023	Responsible Conduct in Research, University of Utah
2023	Research Animal Training, University of Utah
2023	Biosafety Level 2 Training, University of Utah
2022	Peer Reviewer Training Program, American Physiological Society
2020	Research Animal Training, University of Massachusetts Amherst
2018	MRI Safety Training, University of Utah
2018	Oroboros O2K Training Workshop, Schröcken, Austria

UNIVERSITY OF UTAH ACADEMIC HISTORY

2025 - Present	Instructor of Human Physiology, Department of Biology
2023 - Present	Postdoctoral Fellow, Molecular Medicine

PROFESSIONAL EXPERIENCE

Years	Position	Institution
2025 - Present	Instructor of Human Physiology	University of Utah Department of Biology
2023 - Present	Postdoctoral Research Associate	Molecular Medicine Program, University of Utah Diabetes & Metabolism Research Center
2022 - 2023	Clinical Research Manager	University of Massachusetts Amherst Institute for Applied Life Science
2018 - 2022	Graduate Research Assistant	University of Massachusetts Amherst Department of Kinesiology
2016 - 2017	Research Clinical Exercise Physiologist	Baylor College of Medicine, Internal Medicine, Section of Endocrinology, Diabetes, and Metabolism
2014 - 2016	Graduate Teaching Assistant	Stephen F. Austin State University Department of Kinesiology

Reviewer Experience (Alphabetical Order)

American Journal of Hypertension

American Journal of Physiology-Cell Physiology

American Journal of Physiology-Heart and Circulatory Physiology

American Journal of Physiology-Renal Physiology

International Immunopharmacology

Journal of Physiology

Nature Cell Biology

RESEARCH FUNDING

Date	Award	Institution	Amount
06/2025	K99/R00 Career Transition Award	TBD	In Preparation
04/2025	F32 NRSA Postdoctoral Fellowship	National Institutes of Health National Institutes of Diabetes and Digestive and Kidney Diseases	Under Review
11/2024	Pilot & Feasibility Grant	National Institutes of Health Pediatric Centers for Excellence in Nephrology	Not Funded
07/2023	Research Grant	National Kidney Foundation of Utah & Idaho	\$15,000
09/2023	T32 Metabolism Postdoctoral Fellowship	University of Utah	Fellowship
10/2019	Predocutorial Fellowship	American Heart Association	Not Funded

PUBLICATIONS

Published

1. **Decker, ST**, Opurum, PC, Choi, RH, Paula, V, Kurian, AS, Stuart, D, Sanchez, A, Al Rabadi, L, Ramkumar, N, Fisher-Wellman KH, Funai, K. A Platform for Mitochondrial Profiling in Enriched Kidney Segments Under Thermodynamic Control. *BioRxiv*. 2025

2. Opurum PC, **Decker ST**, Stuart D, Peterlin AD, Paula VL, Siripoksup P, Drummond MJ, Sanchez A, Ramkumar N, Funai K. Combined sedentarism and high-fat diet induce early signs of kidney injury in C57BL/6J mice. *American Journal of Physiology-Renal Physiology*. 2025
3. Brothwell MJ, Maschek AJ, Cao G, Poss AM, Peterlin AD, Wang L, Shashout JL, Siripoksup P, Johnson JM, Prola A, Tippetts TS, Nikolova LS, Choi RH, **Decker ST**, Patil MH, Holland WL, Nowinski SM, Lark DS, Ho L, Hale G, Fisher-Wellman KH, Mimche PN, Evanson KJ, Cox JE, Summers SA, Gerhart-Hines Z, Funai K. Low Hepatic Cardiolipin Levels Promote Electron Leak to Steatohepatitis. *BioRxiv*. 2024 (Under Review in *Nature Cell Biology*)
4. **Decker ST**, Funai K. Mitochondrial Lipids in the Regulation of Energy Flux through OXPHOS. *Cell Metabolism*. 2024.
5. Bannon ST, **Decker ST**, Erol ME, Fan R, Huang T, Chung S, Layec G. Mitochondrial Free Radicals Contribute to Cigarette Smoke-Induced Impairment of Oxidative Phosphorylation in Skeletal Muscle. *Free Radical Biology & Medicine*. 2024.
6. Matias AA, Serviente C, **Decker ST**, Erol ME, Giuriato G, Nagarajan R, Le Fur Y, Layec G. Repeatability of Alkaline Inorganic Phosphate Quantification in Skeletal Muscle Using ³¹P-Magnetic Resonance Spectroscopy at 3T. *NMR in Biomedicine*. 2024.
7. **Decker ST**, Matias AA, Cuadra AE, Erol ME, Serviente C, Fenelon K, Layec G. Tissue-Specific Mitochondrial Toxicity of Cigarette Smoke Concentrate: Consequence to Oxidative Phosphorylation. *American Journal of Physiology-Heart and Circulatory Physiology*. 2023.
8. **Decker ST**, Alexandrou-Majaj N, Layec G. Effects of Acute Cigarette Smoke Exposure on Mitochondrial Energy Transfer in Fast and Slow Twitch Skeletal Muscle. *Biochimica et Biophysica Acta - Bioenergetics*. 2023.
9. **Decker ST**, Matias AA, Bannon ST, Madden JP, Alexandrou-Majaj N, Layec G. Effects of Cigarette Smoke on In Situ Mitochondrial Substrate Oxidation of Slow- and Fast-Twitch Skeletal Muscles. *Life Sciences*. 2023.
10. Serviente C, **Decker ST**, Layec G. From Heart to Muscle: Pathophysiological Mechanisms Underlying Long-Term Physical Sequelae from SARS-CoV-2 Infection. *Journal of Applied Physiology (1985)*. 2022.
11. Kwon OS, **Decker ST**, Zhao J, Hoidal JR, Hueckstadt T, Sanders KA, Richardson RS, Layec G. The Receptor for Advanced Glycation End Products (RAGE) Is Involved in Mitochondrial Function and Cigarette Smoke-Induced Oxidative Stress. *Free Radical Biology & Medicine*. 2022.
12. **Decker ST**, Kwon OS, Zhao J, Hoidal JR, Hueckstadt T, Sanders KA, Richardson RS, Layec G. Skeletal Muscle Mitochondrial Adaptations Induced by Long-Term Cigarette Smoke Exposure. *American Journal of Physiology - Endocrinology & Metabolism*. 2021.
13. Li X, Conlin CC, **Decker ST**, Hu N, Mueller M, Khor L, Hanrahan C, Layec G, Lee VS, Zhang JL. Sampling Arterial Input Function (AIF) from Peripheral Arteries: Comparison of a Temporospatial-Feature Based Method Against Conventional Manual Method. *Magnetic Resonance Imaging*. 2019.

Under Review

1. Nagarajan R, Ramadan S, Matias AA, Serviente C, **Decker ST**, Erol ME, Le Fur Y, Layec G. Quantification of skeletal muscle intracellular O₂ availability by ¹H magnetic resonance spectroscopy. Under review in *Magn Reson Mater Phy Biol Med*.

MAJOR PROJECTS

Title	Institution	Status
A Platform for Mitochondrial Profiling in Enriched Kidney Segments Under Thermodynamic Control	University of Utah	Ongoing
Developing a Novel Mouse Model of X-Linked Alport Syndrome (XLAS)	University of Utah	Ongoing
Effects of Semaglutide Treatment on Kidney Mitochondrial Bioenergetics	University of Utah	Ongoing
Effects of GLP-1 Receptor Agonist Treatment on Skeletal Muscle Mitochondrial Bioenergetic Efficiency in Humans		

Title	Institution	Status
Assessment of Mitochondrial Function in a Mouse Model of Mild Chronic Kidney Disease Induced by High-Fat and High-Salt (HF/HS) Diet	University of Utah	Completed
Mechanisms of Cigarette Smoke-Induced Mitochondrial Dysfunction in Striated Muscle and Aorta	University of Massachusetts Amherst	Completed
Development of a Method to Quantify Mitochondrial Content Using the Alkaline Pi Peak via ³¹ P Magnetic Resonance Spectroscopy	University of Massachusetts Amherst	Completed
Effects of Tetrahydrobiopterin (BH ₄) Supplementation on Vascular and Mitochondrial Functions in Patients with COPD	University of Utah	Completed
Lifestyle Intervention in Older Men With Obesity and Hypogonadism	Baylor College of Medicine	Completed
Lifestyle Intervention Strategy to Treat Diabetes in Older Adults	Baylor College of Medicine	Completed

SELECTED POSTER PRESENTATIONS

1. Moses K, **Decker ST**, et al. *Effects of 1- and 3-Weeks of Semaglutide on Mouse Kidney Mitochondrial Bioenergetics*. BRIDGE UP HBCU Poster Session, Salt Lake City, UT, 2024.
2. **Decker ST**, et al. *Development of CRISPR/Cas9-Based Mouse Models for X-linked Alport Syndrome*. American Physiological Society Physiology Summit, Long Beach, CA, 2024.
3. **Decker ST**, et al. *A Novel Approach for Assessing Mitochondrial Respiration in Freshly Isolated Glomerular and Tubular Fractions from Whole Mouse Kidney*. American Physiological Society Physiology Summit, Long Beach, CA, 2024.
4. Paula V, **Decker ST**, et al. *Assessment of Mitochondrial Function in a Mouse Model of Mild Chronic Kidney Disease Induced by High-Fat and High-Salt Diet*. American Physiological Society Physiology Summit, Long Beach, CA, 2024.
5. **Decker ST**, et al. *Effects of Cigarette Smoke on In Situ Mitochondrial Substrate Oxidation on Slow- and Fast-Twitch Skeletal Muscles*. Institute of Applied Life Sciences Core Showcase, Amherst, MA, 2022.
6. **Decker ST**, et al. *Oxidative Stress Induced by Long-Term Cigarette Smoke Exposure Does Not Alter Mitochondrial Respiration in Skeletal Muscle of C57BL6 Mice*. Keystone Symposium: New Insights into the Biology of Exercise, Keystone, CO, 2020.
7. **Decker ST**, et al. *Knockout of the Receptor for Advanced Glycation End Products (RAGE) Increases Skeletal Muscle Mitochondria Content and Alters Mitochondrial Function*. Muscle Biology Conference, Gainesville, FL, 2019.
8. Layec G, Conlin C, Dong J, **Decker ST**, et al. *Assessment of Perfusion-Metabolism Matching in Exercising Muscle Using Dynamic Contrast-Enhanced MRI and T2 Mapping*. International Society for Magnetic Resonance in Medicine, Paris, France, 2018.
9. Conlin C, Dong J, **Decker ST**, et al. *Reproducibility of Calf-Muscle Perfusion Measurements from Dynamic Contrast-Enhanced MRI*. International Society for Magnetic Resonance in Medicine, Paris, France, 2018.
10. **Decker ST**, et al. *Effects of Tetrahydrobiopterin on Limb Blood Flow and Muscle Metabolism in Patients with COPD*. American College of Sports Medicine Annual Meeting, Minneapolis, MN, 2018.
11. **Decker ST**, Rowe J. *Effects of Acute Exercise on Postprandial Lipemia and Postprandial Glycemia*. Texas American College of Sports Medicine Regional Conference, Waco, TX, 2017.

SCHOLASTIC HONORS

2025	Haumana 'O Pasifika Program Near-Peer Mentor
2024	BRIDGE-UP HBCU Training Program Near-Peer Mentor

2024	American Society of Matrix Biology Travel Award Recipient
2023	National Kidney Foundation of Utah and Idaho Research Development Award Recipient
2023	T32 Metabolism Fellowship Awardee
2023	Haumana 'O Pasifika Program Near-Peer Mentor
2020	University of Massachusetts Amherst Travel Award Recipient
2019	International Society of Magnetic Resonance in Medicine Graduate Student Presentation Award
2015	Texas ACSM Graduate Student Research Development Award

ORAL PRESENTATIONS

International

1. **05/2019** - *Effects of Tetrahydrobiopterin on Limb Blood Flow and Muscle Metabolism in Patients with COPD*, International Society for Magnetic Resonance in Medicine, Montreal QC

National/Regional

1. **02/2017** - *Effects of Acute Exercise on Postprandial Lipemia and Postprandial Glycemia*. Texas American College of Sports Medicine Regional Conference, Waco, TX

Local

2. **03/2024** - *A Novel Approach for Assessing Mitochondrial Respiration in Freshly Isolated Glomerular and Tubular Fractions from Whole Mouse Kidney*, Nephrology Conference, Division of Nephrology and Hypertension, University of Utah School of Medicine
 3. **01/2024** - *Developing a Novel Mouse Model of X-Linked Alport Syndrome (XLAS)*, Research in Progress, University of Utah Department of Nutrition and Integrative Physiology
 4. **11/2021** - *Connecting the Dots of the Power Grid: Mitochondrial Membrane Potential in Permeabilized Skeletal Muscle*, University of Massachusetts Amherst Department of Kinesiology.
 5. **03/2020** - *The Physiological Role of Sirtuins: Aging Targets or Hype?*, University of Massachusetts Amherst.
-

TEACHING EXPERIENCE

Instructor of Record

- **Spring 2025 - Present:** BIOL 2420 – Human Physiology, University of Utah
- **Summer 2021:** KIN 272 - Anatomy & Physiology II, University of Massachusetts Amherst
- **Fall 2015 & Spring 2016:** KIN 100 - Physical Fitness Concepts, Stephen F. Austin State University

Teaching Assistant

- **Spring 2021 & 2022:** KIN 470 - Exercise Physiology, University of Massachusetts Amherst
 - **Fall 2019:** KIN 540 – Advanced Exercise Physiology, University of Massachusetts Amherst
 - **Fall 2020:** KIN 270 - Anatomy & Physiology I, University of Massachusetts Amherst
-

MENTORING AND ADVISING

Graduate Students

- **Precious Oporum** (2023-Present) - Ph.D. Candidate, University of Utah
- **M. Enes Erol** (2020-2023) - Ph.D. Candidate, University of Nebraska Omaha
- **Alexs Matias** (2019–2022) - Ph.D. Candidate, University of Delaware

Undergraduate Students

- **Zarya Smith** (2025 - Present) - Haumana O' Pasifika Scholar
- **Kennedy Moses** (2024) - BRIDGE UP HBCU Internship Program; Undergraduate student at Prairie View A&M University (Texas)
Achievement: Winner of BRIDGE UP HBCU Poster Session (Summer 2024)
- **Venisia Paula** (2023-2024) - Haumana O' Pasifika Scholar
Achievement: Recipient of Undergraduate Research Opportunity Program Funding (Spring 2024)
- **Sean Bannon** (2021-2023) – Applying for medical school
Achievement: Rising Researcher Award
Achievement: Named University of Massachusetts Amherst School of Public Health and Health Sciences 21st Century Leader
- **William Callahan** (2018–2020)
- **Mia Calderone** (2018–2020) – Medical Student at Auburn University
- **John Madden** (2018–2020) – Research Assistant at Harvard University
- **Jyotika Vallurupalli** (2018–2020) – Medical student at University of New England
- **Sebastien Rauch** (2018–2020) – Scientist at Biogen
- **Todd Maniscalchi** (2018–2020) – Currently a Physician Assistant
- **Joe Howard** (2018–2020) – In Nursing school

PROFESSIONAL SERVICE AND MEMBERSHIPS

Date	Role	Organization
2023 - Present	Member	American Society of Matrix Biology
2023 - Present	Member	American Society of Nephrology
2018 - Present	Member	International Society for Magnetic Resonance in Medicine
2017 - Present	Member	American Physiological Society
2014 - Present	Member	American College of Sports Medicine