

Matthew Gedye

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PhD student at Deakin University's School of Exercise and Nutrition Science and the University of Copenhagen's Centre for Metabolic Research. Investigating the potential sex-specific roles of non-coding RNAs in regulating mitochondrial biogenesis in skeletal muscle. My contributions to this field will hopefully assist in the development of novel therapeutics for metabolic diseases.

Research Interests and Areas of Expertise:

Nutritional Biochemistry | Mitochondrial Bioenergetics | Metabolic Disease | Molecular Genetics

EDUCATION

PhD in Exercise Physiology and Molecular Genetics

Deakin University and the University of Copenhagen, 2023 – Present

Proposed Thesis Title: “Do Non-Coding RNAs Play a Sex-Specific Role in Regulating Mitochondrial Biogenesis in Skeletal Muscle Following Exercise?”

Supervisors:

- Prof. Glenn Wadley
- A/Prof. Severine Lamon
- Dr. Bianca Bernardo
- Dr. Søren Nielsen
- A/Prof. Zach Gehart-Hines

Master of Human Nutrition

Deakin University, 2020-2022

Thesis Title: “Do Long Non-Coding RNAs Play a Role the Molecular Signaling Pathways of Glucose Metabolism in Skeletal Muscle?”

Supervisor:

- Dr. Adam Trewin

Relevant Coursework:

- Principles of Nutrition | Assessment Methods for Nutrition and Physical Activity | Sports Nutrition | Biochemistry and Physiology for Nutrition | Understanding Human Nutrition Research Studies | Essentials of Food Science | Nutrition Through the Lifespan | Nutrition for Healthy Ageing

Bachelor of Health Science (Physiology and Anatomy Major)

La Trobe University, 2012-2016

Relevant Coursework:

- Human Bioscience | Human Anatomy | Individual and Social Determinants of Health and Well Being | Human Physiology & Research | Theory and Practicum in Human Physiology | Advancements in Human Physiology | Professional Practice in Health Science | Re-thinking our Humanity | Exercise Physiology | Pharmacology | Sports Psychology

RESEARCH EXPERIENCE

Research Technician

Department of Molecular Genetics and Microbiology, Duke University, 2022-2024

Principle Investigator: A/Prof. Lawrence David

Assisted the research team in applying microbiology molecular techniques (FoodSeq) to sequence plant and animal DNA in human stool to serve as an objective compliment to subjective methods of dietary assessment in nutritional epidemiology research.

Experiences include:

- Coordinating laboratory inventory management of biological sample stock.
- Coordinating collaborations with domestic and international research teams (including universities and health institutions) for transfer of biological samples for DNA sequencing.
- Assisting in DNA extraction from human stool samples.
- Facilitating in local community outreach to launch pilot studies.
- Coordinating human trials including participant recruitment, screening, and enrollment.

PROFESSIONAL EXPERIENCE

Fitness Professional and Personal Trainer

Vision Personal Training Hawthorn, 2016-2021

Unique health & fitness center focused on results and personalized training programs based on lifestyle, fitness, nutrition, and health goals.

Experiences include:

- Coaching and educating clients for success in:
 - Weight loss ranging from 5 to 30 kgs through nutritional guidance and safe exercise.
 - Running goals from 5K to ultra-marathons with specific running and strength training.
 - Addressing specific health issues related to disease management and pregnancy.

- Developing and Delivering seminars on weight loss and nutrition to community groups and organizations.
- Collaborating with, and referring clients to, recognised health professionals such as dietitians and physiotherapists.
- Increasing sales by creating long-term relationships and client referrals.
- Mentoring and training new staff members.

TEACHING EXPERIENCE

Teaching Assistant, HSE303 Exercise Metabolism

Deakin University, 2024

- Facilitated in the organisation of assessment materials.
- Grading assignments.

PUBLICATIONS

- Pisetsky, D.S., **Gedye, M.J.**, David, L.A., and Spencer, D.M., "The Binding Properties of Antibodies to Z-DNA in the Sera of Normal Healthy Subjects," *International Journal of Molecular Sciences*, vol. 25, no. 5, article 2556, 2024
[\[https://doi.org/10.3390/ijms25052556\]](https://doi.org/10.3390/ijms25052556)

SKILLS

- **Technical Skills**
 - R, Stata, GraphPad Prism | Data Analysis, Statistical Modeling
- **Laboratory Skills**
 - DNA Extraction | Mitochondrial Isolation
- **Research Skills**
 - Experimental Design, Data Collection | Literature review, Scientific Writing
- **Soft Skills**
 - Team Collaboration | Mentoring | Public Speaking | Problem Solving, Critical Thinking

REFERENCES

Professional and academic references available upon request.