KALHARA RASHMIKUMARA MENIKDIWELA

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ACADEMIC HISTORY

- Department of Nutritional Sciences, College of Human Science, Texas Tech University
  - **Graduate candidate (PhD)PhD Nutritional Sciences** (Fall 2016 to present): Current GPA: 4

- University of Peradeniya, Postgraduate Institute of Agriculture (PGIA), Sri Lanka
  - **MSc Biotechnology** (2009-2011): GPA: 3.86

- University of Pune, India (Savitribai Phule Pune University)
  - **BSc Biotechnology** (2006-2009): 1st Class (Full Government scholarship)

- University of Colombo Sri Lanka
  - **BSc Biology: Transferred to Savitribai Phule Pune University India** (Full Government scholarship)

PROFESSIONAL QUALIFICATIONS

- **Volunteer Research Assistant** at NIOR lab Texas Department of Nutritional Sciences, Tech University from 2015 September to August 2016

- **Assistant Manager** at the Synergen Health (Pvt) Ltd Colombo (United States based HealthCare company) From 2011 February to July 2015

- **Medical Laboratory Technologies** at Lanka Hospitals (Pvt) Ltd, Colombo 5, 2009 Oct to Jan 2010

- **Volunteer Research officer**: Institute of Fundamental Studies Kandy: 2010 June to 2010 December.

CORE DEGREE RELATED PROJECTS

- **Ph.D. Dissertation Research:** Department of Nutritional Science, College of Human Sciences, Texas Tech University, Lubbock, TX Mentor: Dr. N. Moustaid-Moussa (PhD, FTOS, FAHA)

  - Micro RNAs Mediating Effects of Adipose Angiotensinogen in Adipocyte Inflammation and ER Stress and Discordant Roles of Autophagy in Metabolic Syndrome: Link to the Renin Angiotensin System (Project 1)
  - Effects of fish oil supplementation during pregnancy on maternal and offspring insulin resistance and obesity in diet-induced obese mice (Project 2)

- **Research Assistant**

  - Identification of Novel Pathways and miRNA Targets Mediating Effects of Angiotensin in Obesity-related Diabetes pancreatic function. Dr. N. Moustaid-Moussa and Dr. Latha Ramalingama Department of Nutritional Sciences, TTU 2016 August to present

- Delta-Tocotrienol Dose-dependently Improves Adiposity, Inflammation, And Increased Markers of Lipid Oxidation in High Fat Fed Mice. Mentor: Dr. N. Moustaid-Moussa and Dr Latha Ramalingama Department of Nutritional Sciences, TTU 2015 to 2016

- The Long-term Weight and Metabolic Effects of Olanzapine in Mice and the Impact of Fish Oil Supplementation. Mentor: Dr. N. Moustaid-Moussa and Dr Latha Ramalingama Department of Nutritional Sciences, TTU 2015 to 2016

- **MSc Research Projects**
  - Analyzing the effects and the universality of biofilmed biofertilizers having nitrogen fixers (fungal-bacterial biofilms)

  - Molecular characterization of *Rhinacanthusnasutus* vs *Rhinacanthus spp.*

- **BSc Research Project**
  - Isolation and Characterization of Milk Fermenting Microorganisms *Lactobacillus spp*, *Streptococcus spp.*BSc. Biotechnology final year project

PUBLICATIONS

1. H. M. L. I. Herath, ***K. R. Menikdiwela***, A. D. Igalavithana and G. Seneviratne, Developed Fungal-Bacterial Biofilms Having Nitrogen Fixers: Universal Biofertilizers for Legumes and Non-Legumes. Biological Nitrogen Fixation, 2015 DOI: 10.1002/9781119053095.ch102
2. Ramalingam L, ***Menikdiwela K***, LeMieux M, Dufour JM, Kaur G, Kalupahana NS, Moustaid-Moussa N. The renin angiotensin system, oxidative stress and mitochondrial function in obesity and insulin resistance. Biochim Biophys Acta. 2016: S0925-4439(16)30187-9
3. Allen L, Ramalingam L, ***Menikdiwela K***, Scoggin S, Shen CL, Dufour JM, Chung E, Kalupahana NS, Moustaid-Moussa N. Effects of DeltaTocotrienol on Obesity-Related Adipocyte Hypertrophy, Inflammation, and Hepatic Steatosis in High Fat Fed Mice. J Nutr Biochem. 2017 Oct; 48:128-137.
4. Ramalingam, L., ***Menikdiwela K***, et al., Maternal and Postnatal Supplementation of Fish Oil Improves Metabolic Health of Mouse Male Offspring. Obesity, 2018. 26(11): p. 1740-1748.
5. Pahlavani, M., Ramalingam L, Miller E, Scoggin S, ***Menikdiwela K***, Kalupahana NS, Festuccia WT, Moustaid-Moussa N., Eicosapentaenoic Acid Reduces Adiposity, Glucose Intolerance and Increases Oxygen Consumption Independently of Uncoupling Protein 1. Molecular nutrition & food research, 2019: p. 1800821.
6. ***Menikdiwela K***, Ramalingam L, Mena L, Scoggin S, Kalupahana NS, Moustaid-Moussa N. Angiotensin II Increases Endoplasmic Reticulum Stress in Adipose Tissue and Adipocytes. Scientific reports, 2019. 9(1): p. 8481.
7. ***Menikdiwela K***, Ramalingam L, Rasha F, Wang S, Dufour JM, Kalupahana NS, Moustaid-Moussa N. Discordant Roles of Autophagy in Metabolic Syndrome: Link to the Renin Angiotensin System. Autophagy. (*In review)*.

ABSTRACTS

- **"Mechanisms Linking the Adipocyte Renin Angiotensin System, Inflammation and Endoplasmic Reticulum (ER) Stress".** Kalhara R. Menikdiwela, Latha Ramalingam, Nishan S. Kalupahana, Shane Scoggin, and Naima Moustaid-Moussa. FASEB journal. 670.53. EB 2018 Submitted
- **"Micro RNAs Mediating Effects of Adipose Angiotensinogen in Adipocyte Inflammation and ER Stress" Kalhara Menikdiwela**, Latha Ramalingam, Shane Scoggin, Nishan S.

Kalupahana, Naima Moustaid-Moussa Abstract: EB 2017 Submitted (Experimental Biology conference)

- **"Effects of Fish Oil Supplementation during Pregnancy and Post-weaning on Offspring Metabolic Health"** Latha Ramalingam, **Kalhara Menikdiwela**, London Allen, Shane Scoggin, Iurii Koboziev and Naima Moustaid-Moussa Abstract: EB 2017 Submitted (Experimental Biology conference)

ORAL PRESENTATIONS

- "Maternal and Offspring Supplementation with Fish oil Improves Metabolic Health in Diet-induced Obesity" ORC Meeting and Obesity Conference TTU 2018 (1st place)
- "Effects of fish oil supplementation during pregnancy on maternal and childhood obesity" Annual Three Minute Thesis Competition, Graduate School Texas Tech University 2016

POSTERS

- ***Menikdiwela, K.,*** Ramalingam, L., Scoggin, S., Bensmail, H., Abbas, M., Kalupahana, N., Moustaid-Moussa, N., Identification of miRNAs Mediating Effects of the Renin Angiotensin System in Adipose Tissue. American Society of Nutrition (ASN), June 2019; Baltimore
- ***Menikdiwela, K***, Clevenger S, Eboh T, Ramalingam, L., Allen, L., Scoggin, S. Moustaid-Moussa, N. Maternal and offspring supplementation with fish oil improves metabolic health in diet-induced obesity. American Society of Nutrition (ASN), June 2018; Boston.
- ***Menikdiwela K***, Ramalingam L, Scoggin S, Kalupahana NS, Moustaid-Moussa N. Micro RNAs mediating effects of adipose angiotensinogen in adipocyte inflammation and ER Stress. Experimental Biology (EB), April 2017; Chicago.
- Moustaid-Moussa N, ***Menikdiwela K***, Ramalingam L. Mechanisms Linking Adipocyte Renin Angiotensin System, Inflammation and Endoplasmic Reticulum (ER) Stress. Immunometabolism and chronic disease conference, 2017; Fiji.
- ***Kalhara Menikdiwela***, Latha Ramalingam, Naima Moustaid-Moussa. Maternal and Offspring Supplementation with Fish oil Improves Metabolic Health in Diet-induced Obesity. 17th Annual Graduate Student Research Poster Competition 2018.
- ***Kalhara Menikdiwela***, London Allen, Latha Ramalingam, Chwan-Li Shen, Michael D. Tomison, Gurvinder Kaur, Jannette Dufour, Eunhee Chung, & Naima Moustaid-Moussa. Delta-Tocotrienol Dose-dependently Improves Adiposity, Inflammation, And Increased Markers of Lipid Oxidation in High Fat Fed Mice. 3rd Annual ORC Meeting and Obesity Conference TTU 2016
- Brandon Stewart, Latha Ramalingam, ***Kalhara Menikdiwela***, Naima Moustaid-Moussa, Paul Soto. The Long-term Weight and Metabolic Effects of Olanzapine in Mice and the Impact of Fish Oil Supplementation. Experimental Biology conference, April 2016; San Diego
  Brianna George, Latha Ramalingam, ***Kalhara Menikdiwela***, Naima Moustaid-Moussa, Paul Soto. The Long-Term Effects of Early-Life Exposure to Olanzapine. Experimental Biology conference, April 2016; San Diego

TEACHING & MENTORING

- Teaching assistant (NS1410) in the departments of Nutritional sciences in the College of Human Sciences

	Fall 2018 Science of Nutrition lab (NS1410)
Course objectives met by the Teacher	4.8/5
Effectiveness of teacher	4.7/5
Course was a valuable learning experience	4.6/5

- Identification of Novel Pathways and miRNA Targets Mediating Effects of Angiotensin in Obesity-related Diabetes pancreatic function. Currently mentoring an undergraduate honors student. My role is to provide training on laboratory techniques and equipment, experiment design, face to face discussions and provide feedback.

SCHOLARSHIPS & FELLOWSHIPS OBTAINED

- ASN Gerber Foundation Predoctoral Fellowship recipient 2019-2020
- Doctoral Dissertation Completion Fellowship 2019-2020
- James D. and Mary Hazlewood Memorial Graduate Fellowship 2018-2019
- Marguerite B. Snyder Scholarship in the College of Human Sciences 2018-2019
- Covenant Health and Social Services Graduate Fellowship 2017-2018
- College of Human Sciences TTU Nutritional Recruitment Scholarship 2016-2017
- Texas Tech University Pres Doc EX research assistant scholarship 2016-2017
- Government full scholarship by the Indian Council for Cultural Relations (ICCR) for BSc. Biotechnology at the University of Pune- India 2006-2009
- Study Abroad Competitive Scholarship (SACS): Summer & fall 2017, 2019
- Was one of 100 graduate students selected for NIH ODS Dietary Supplement Research Practicum May 2017 Washington DC

AWARDS:

- **First place**: Obesity Research Cluster (ORC) Meeting and Obesity Conference TTU 2018
- Graduate Travel award – Experimental Biology 2017
  American Society of Biochemistry and Molecular Biology- Chicago, IL
- Graduate Student Research Support Award 2017

PROFESSIONAL SOCIETY MEMBERSHIPS

- American Society of Biochemistry and Molecular Biology (ASBMB)– Student Member 2016 to present
- Sigma XI member 2017 to present
- American Society of Nutrition (ASN) 2016 to present
- Obesity Research Cluster, Texas Tech University 2015 to present

- The Obesity Society - Student member 2016 to present

PROFESSIONAL WORKSHOPS/ CERTIFICATE COURSES

- Professional development program — Apr 2017
  American Society of Biochemistry and Molecular Biology
- Introduction to Real-Time PCR: Basic Principles and Chemistries — Aug 2016
- International Teaching Assistants Workshop, Texas Tech University — Jul 2016
- International computer driving license (ICDL) — Nov 2006

REFERENCES

Dr. Naima Moustaid-Moussa
Professor, Department of Nutritional Sciences,
Texas Tech University
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Dr Jannette Dufour
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Cell Biology and Biochemistry,
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