

CURRICULUM VITAE

UDAHAWATTE GEDARA SHASIKA JAYARATHNE

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EDUCATION

- Graduating, May 2020** **Ph.D. in Nutritional Sciences**
Department of Nutritional Sciences, Texas Tech University, Lubbock, TX
Mentor: Dr. Naima Moustaid-Moussa
- 2016** **Master of Science in Biotechnology**
Center for Biotechnology & Genomics Texas Tech University, Lubbock, TX
- 2013** **Bachelor of Science in Biology**
Open University, Colombo, SriLanka
- 2010** **National Diploma in Teaching in Science**
National Institute of Education, Colombo, SriLanka

SCHOLARSHIPS AND AWARDS

- 2019** Summer/Thesis Dissertation research Award, Graduate School, TTU
- 2019** Doctoral Dissertation Completion Fellowship, Graduate School, TTU
- 2019** Study Abroad Competitive Scholarship, Int. Students Council, TTU
- 2018** Runners up, 17th Annual Graduate School Poster Competition, TTU
- 2018** Study Abroad Competitive Scholarship, Int. Students Council, TTU
- 2018** Dr. Gail E. Gates Nutritional Sciences Scholarship, TTU
- 2018** Food and Nutrition Scholarship, Nutritional Sciences Department, TTU
- 2018** Reuby Tom Maeker Scholarship, Nutritional Sciences Department, TTU
- 2017** **Travel Award, American Society for Biochemistry and Molecular Biology (ASBMB) for Experimental Biology (EB) Annual Session**
- 2017** Graduate Student Research Support Award, Graduate School, TTU
- 2017** Second place, 16th Annual Graduate Students Poster Competition, TTU
- 2017** Study Abroad Competitive Scholarship, Int. Students Council, TTU
- 2016** General fellowship, Nutritional Sciences Department, TTU

RESEARCH AND TEACHING EXPERIENCE

- 2016– present** **Graduate Research Assistant**
Dr. Moustaid-Moussa's Lab - Nutrigenomics Inflammation & Obesity Research (NIOR) Lab, TTU Nutritional Sciences Department
- 2016-2017** **Graduate Teaching Assistant**
Mentor: Dr. John Dawson, TTU Nutritional Sciences Department
Graduate Biostatistics class (in class)

TECHNIQUES LEARNED

- **Molecular Biology and Genetics:**
DNA & RNA Extraction, Plasmid isolation, cDNA preparation, RT-qPCR to analyze gene expression, Bacteria cloning & sub cloning (recursive directional ligation of plasmids), Genetic transformation, DNA/RNA sequencing (Illumina HiSeq), Library preparation for RNA/DNA sequencing, Nucleic acid restriction and electrophoresis
- **Protein Biochemistry and Analytical Techniques:**
Gel electrophoresis, Western blotting, Liquid chromatography mass-spectrometry (LC-MS), Sample preparation for LC-MS, ELISA, MTT & LBP assays, MALDI-TOF
- **Microbiology and Nematology:**
Bacteria and worm cultures, Microfluidic devices
- **Cell Culture**
3T3-L1 cell culture, Mouse stem cell cultures (SAT, VAT)
- **Staining**
Oil Red O staining of C elegans and adipocytes, Immunohistochemical staining (Antibody staining of tissues)
- **Biostatistics and Bioinformatics:**
R statistical software
Data mining using bio informatics tools (IPA, DNA star, UNIPROT, Panther, David, Proteome Discover)
- **Other Techniques**
Protein engineering, cryo-sectioning, anthocyanins extraction, small molecule analysis using HPLC, C elegans culturing (Agar and Axenic media), Sae-horse

UNDERGRADUATE RESEARCH MENTORING

2017 - 2019

Alexandra Miranda, Biology

Alexandra was an honors undergraduate student in Biology major with a Chemistry minor and plans to attend medical school. I mentored and trained her, and she was assisting with my research projects on effects of tart cherry anthocyanins in adipocytes. She presented her research work at the TTU Undergraduate Research Conference in Spring 2018, and National Conference for Undergraduate Research (NCUR) which in April 2019.

PUBLICATIONS

- **Jayarathne. S, Hunter. E, Ramalingam. L, Vanapalli. S, Moustaid-Moussa. N**, “Tart Cherry Increases Lifespan of *C. elegans*”, *Journal of Cell Age* (IF: 7.2), In preparation
- **Jayarathne. S, Stull. A.J, Park. O, Kim. J. H, Thompson. L, Moustaid-Moussa. N**. “Anthocyanins in Obesity and Inflammation”, ***Journal of Molecular Nutrition and Food Research* (IF: 5.2), August 2019**, doi: 10.1002/mnfr.201900149.
- **Jayarathne. S, Stull. A-J, Miranda. A, Scoggin. S, Claycombe-Larson. K, Kim, J-H, Moustaid-Moussa. N**. “Tart Cherry Reduces Inflammation in Adipose Tissue of Zucker Fatty Rats and Cultured 3T3-L1 Adipocytes”, ***Nutrients* (IF: 4.2), 2018,10,1576; doi:10.3390/nu10111576**
- Bouyanfif. A, **Jayarathne. S**, Kobozev. I, Moustaid-Moussa. N. “The Nematode *Caenorhabditis elegans* as a Model Organism to Study Metabolic Effects of Omega-3 Polyunsaturated Fatty Acids in Obesity”, ***Advances in Nutrition* (IF:6.8), 2019, 165-178; doi: <https://doi.org/10.1093/advances/nmy059>**
- Pahlavani. M, Ramalho. T, Kobozev. I, LeMieux. M, **Jayarathne. S**, Ramalingam. L, Jancar. S, Figuiras. L, Moustaid-Moussa. N, “Adipose Tissue Inflammation in Insulin Resistance: review of mechanisms mediating anti-inflammatory effects of omega-3 polyunsaturated fatty acids”, ***Journal of Investigative Medicine*, 2017 (IF:2.02), 65:1021-1027 doi:10.1136/jim-2017-000535**
- **Jayarathne. S, I. Kobozev, W. Oldewage, O. Park, L. Shen, N. Moustaid-Moussa**, “Effects of some known bioactive food compounds on inflammation”, Review article. In preparation for ***Journal of Preventive Nutrition and Food (PNF), invited mini Review, 2017;22(4):251-262***

PRESENTATIONS/PUBLISHED ABSTRACTS

- **Jayarathne. S, Pahlavani. M, Ramalingam. L, Scoggin. S, Moustaid-Moussa. N**. “Eicosapentaenoic Acid Increase Being Markers in Subcutaneous Adipose Tissue and Primary Adipocytes from Wild Type and UCP-1 Deficient Mice”. Poster presented at American Society for Nutrition annual secession, **Baltimore, 2019, Abstract ID: 641444, ASN**
- **Jayarathne. S, Jayarathne. S, Hunter. E, Ramalingam. L, Vanapalli. S, Moustaid-Moussa. N**, “Tart Cherry Increases Lifespan of *C. elegans*”, International *C. elegans* Conference, Los Angeles, 2019, Abstract ID: 195110834. Selected to poster Competition
- **Jayarathne. S, Stull. A, Miranda. A, Claycombe-Larson. K, Scoggin. S, Moustaid-Moussa. N**. “Anti-inflammatory effects of tart cherry anthocyanins in Zucker fatty rats and cultured adipocytes”. Poster presented at American Society for Nutrition annual secession, **Boston, 2018, Abstract ID: 438470, ASN**
- **Jayarathne. S, Stull. A, Miranda. A, Claycombe-Larson. K, Scoggin. S, Moustaid-Moussa. N.** “Anti-inflammatory Effects of Tart cherry anthocyanins in Adipose Tissue”. **17th Annual Graduate Student Poster Competition, TTU, 2018**, Runners-up
- **Jayarathne. S, Stull. A, Miranda. A, Claycombe-Larson. K, Scoggin. S, Moustaid-Moussa. N.** “Effects of Tart cherry anthocyanins in obesity and inflammation”. **Obesity Research Cluster Annual Session, TTU, 2018**
- **Jayarathne. S, Scoggin. S, Kottapali. R, Zabet. M, Bhawel. R, Klay-Clombe. K, N. Moustaid-Moussa**, Gene and protein profiling of effects of tart cherry anthocyanins in pre-adipocytes.

Poster presented at the American Society for Molecular Biology and Biochemistry at annual Experimental Biology conference, **Chicago, April 2017, Abstract ID: 625.4 (FASEB Journal)**, Travel award

- Bouyanfif. A, **Jayarathne. S**, Hewit. J, Liyanage. S, Abidi. N, Vanapali. S, Moustaid-Moussa. N, Comparative gene expression and imaging studies in *Caenorhabditis elegans* wild type and mutant strains in bacterial vs. axenic cultures. **Poster** presented at annual *C. elegans* session, **Los-Angeles, June 2017**
- **Jayarathne. S**, Kottapalli. R, Zabeth. M, Bhawel. R, Moustaid-Moussa. N, “Gene and protein profiling of tart cherry treated pre-adipocytes”. **16th Annual Graduate Student Poster Competition, TTU, 2017, 2nd place**
- **Jayarathne. S**, Effects of tart cherry anthocyanins in inflammation. Oral presentation at the **Three Minute Thesis Presentation, TTU, October 2016.**

MEMBERSHIPS

American Society for Nutrition

American Society for Biochemistry and Molecular Biology

Genetics Society of America

Obesity Research Cluster, TTU

Graduate Nutrition Organization, TTU

Sri Lankan Student Association, TTU

REFERENCES

Dr. Naima Moustaid-Moussa, Ph.D., FTOS, FAHA Professor Nutritional Sciences, Director, Obesity Research Cluster (ORC), Nutrigenomics, Inflammation and Obesity Research (NIOR) Laboratory 1301 Akron Street Lubbock, TX 79409-1270. E-mail: naima.moustaid-moussa@ttu.edu Phone: +1 806-834-7946; F: +1 806-632-8642

Dr. April Stull, Ph.D, RDN, FAND, Associate Professor of Nutrition, Director, Didactic Program of Dietetics, University of Maryland Eastern Shore, Department of Human Ecology, 2109 Henson Center, Princess Anne, MD 21853. E-mail: ajstull@umes.edu Phone: +1 410-651-6060; Fax: +1 410-651-6285