

Nutritional Sciences Department Newsletter Vol 11, Iss 1; May 2025

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Headline Story

The Department of Nutritional Sciences announces the retirement of Dr. Wilna Oldewage-Theron and Dr. Mary Murimi.

Dr. Wilna Oldewage-Theron, Professor of Nutrition in the Department of Nutritional Sciences, retired from Texas Tech University in May 2025. Dr. Oldewage-Theron has had an extensive and impactful career in community nutrition, with over 20 years of research experience addressing food insecurity and malnutrition in resource-poor communities. Her work has focused on interventions such as food fortification, supplementation, nutrition education, and school feeding programs, and she has mentored numerous graduate and postdoctoral students.

Dr. Murimi, also a Professor of Nutrition, has dedicated her career to improving food security and dietary behaviors in both U.S. and international communities. Her work focuses on obesity prevention in rural populations, stunting research in Bangladesh and Ethiopia, and livestock-based nutrition interventions in Africa. Dr. Murimi has served her profession as the President for the Society of Nutrition Education and Behavior, and an Associate editor for the Journal of Nutrition Education and Behavior and mentored several graduate students.

The Department of Nutritional Sciences extends its sincere appreciation to Dr. Oldewage-Theron and Dr. Murimi for their outstanding contributions to nutrition research, education, and mentorship. Their dedication has shaped the careers of many students and advanced the field of community nutrition. We wish them both the very best in their future endeavors.



Dr. Murimi

Dr. Oldewage-Theron

Department Announcements

Class of 2025 Graduation Celebration

- The Nutritional Sciences (NS) Department celebrated our Spring 2025 graduates on May 15, 2025.
- Master of Science in Nutrition and Dietetics
 - Cara Puccini
 - Jorja Washington
 - Sara Wiederholt
 - Kesley Wild
 - Mikaela Markel
 - Shonette Wilkinson
 - Bryleigh Moffitt
 - Nicole St. John
 - Summer Brackmann
 - Gypsi Paz
 - Muqadded Waqer
 - Ariana Cartagena
- Master of Science in Nutritional Sciences
 - Alexis Brown
 - Sadie West
- Doctorate in Nutritional Sciences
 - Raksa Andalib Hia
 - Mary Oyewole
 - Gaurav Kudchadkar
 - Princess Uchechi Ozioma
 - Maryam Seifishahpar
 - Elyvine Gasana

Nutrition & Metabolic Health Initiative (NMHI)

- The NMHI hosted several guest speakers from both within and outside TTU as part of the “Power Hour” series, offering fresh perspectives and valuable insights during the fall semester.
- NMHI launched two new internally funded studies. Dr. Galyean is leading one project, while another is led by Dr. Hefner, with oversight and collaboration from Dr. Dhurandhar on both. These studies expand NMHI’s commitment to advancing nutrition science and clinical applications.
- NMHI hosted an interactive clinic tour for Southcrest Christian High School students on April 24, designed to inspire future STEM professionals. High school students (freshmen through seniors) explored career opportunities in nutrition and dietetics through hands-on demonstrations, including MedGem metabolic testing, BIA body composition analysis, phlebotomy, and snack activity illustrating calorie density.



Obesity Research Institute (ORI)

The 10th Annual Meeting of the Obesity Research Institute (ORI) was held on May 7, 2025. During the event, ORI officially announced its new name: **Center of Excellence in Obesity and Cardiometabolic Research (COCR)**.

Several students from our department presented their research at the meeting, including Ashti Morovati, Fereshteh Dehghani, Hazera Binte Sufian, Maryam Seifishahpar, Andrea Sosa-Holwerda, Benjamine Madura, and Dr. MD Khurshidul Zahid.

- Impact Talk Competition:
In the Impact Talk competition, where the top three abstracts were selected for oral presentations, Ashti Morovati and Fereshteh Dehghani received 1st and 3rd place, respectively.
- Poster Competition (Student GNO):
Hazera Binte Sufian, Maryam Seifishahpar, and Andrea Sosa-Holwerda won 1st, 2nd, and 3rd place, respectively, in the poster competition the GNO student section at COCR.

Master's Theses and Doctoral Dissertations

- Maryam Seifishahpar
 - Degree: Ph.D.
 - Dissertation Title: The effects of supplemental tart cherry and fish oil on inflammation and gut microbiota in diet-induced and genetically obese (TALLYHO/Jng) mouse models
 - Dissertation Committee: Dr. Naima Moustaid-Moussa (Committee Chair), Dr. Yujiao Zu, Dr. Nishan Kalupahana, Dr. Mohamed Fokar, Dr. Jung Han Kim
- Mary Oyewole
 - Degree: Ph.D.
 - Thesis Title: Investigation on Food Assistance Program and Dietary Behavior Among Texas Tech Students, A Case Study of Raiders Red's Food Pantry
 - Thesis Committee: Dr. Wilna Oldewage-Theron (Committee Chair), Dr. Surya Niraula, Dr. Shannon Galyean, Dr. Elizabeth Massengale, and Dr. Ryan Litsey.

- Princess Uchechi Ozioma
 - Degree: Ph.D.
 - Dissertation Title: The Role of High Protein Ramen Noodles in Inducing and Maintaining Satiety: Acute, Randomized, Crossover Study
 - Dissertation Committee: Dr. Nik Dhurandhar (Committee Chair), Dr. Surya Niraula, Dr. Arubala Reddy, Dr. Kristina Petersen, Dr. Leah Whigham

- Raksa Andalib Hia
 - Degree: Ph.D.
 - Dissertation Title: Does Chronic Expression of E4orf1 Improve Risk Factors and Cognition Decline in a Mouse Model of Obesity Associated Alzheimer's Disease?
 - Dissertation Committee: Dr. Vijay Hegde (Committee Chair), Dr. Nikhil Dhurandhar, Dr. Andrew Shin, Dr. Arubala Reddy, and Dr. Brittany Backus.

- Gaurav Kudchadkar
 - Degree: Ph.D.
 - Dissertation Title: SARS-CoV-2 Infection, Body Weight Changes, and Implications for Cardiometabolic Risk Profile
 - Dissertation Committee: Dr. Nikhil Dhurandhar (Committee Chair), and Dr. Marleigh Hefner, Dr. Surya Niraula, Dr. Vijay Hegde, Dr. Martin Binks, Dr. Leah Whigham, and Dr. Kristina Petersen.

- Elyvine Gasana
 - Degree: Ph.D.
 - Dissertation Title: The effect of lentil vegetable blend combined with a theory based nutrition education intervention on Turkana children's health outcomes
 - Dissertation Committee: Dr. Mary Murimi (Committee Chair), Dr. Oak-Hee Park, Dr. Surya Niraula, Dr. Kristina Petersen, and Dr. Duke Appiah.

Student Achievements

- Ashti Morovati's research was awarded the 1st place in the Emerging Leaders in Nutrition Science category at the American Society of Nutrition (ASN) Conference 2025.
- Ashti Morovati and Fereshteh Dehghani won the 1st and 3rd place for the Impac Talk competition at the 10th annual meeting for Center of Excellence in Obesity and Cardiometabolic Research at Texas Tech.
- Hazera Binte Sufian, Maryam Seifishahpar, and Andrea Sosa-Holwerda won the 1st, 2nd and 3rd place for poster competition the GNO student section at the Center of Excellence in Obesity and Cardiometabolic Research at Texas Tech.
- Sharon Akah, an undergraduate student in the Obesity and Metabolic Health Lab (OMHL) mentored by Dr. Hegde and Masoud Nateqi, won 1st place in the Health Sciences category at the 2025 Undergraduate Research Conference (URC).

Faculty Awards

- Dr. Niama Moustaid-Moussa
 - Received the Distinguished Fellow of the American Society for Nutrition (DFASN) award, which is the highest honor awarded by ASN, in recognition of outstanding lifetime achievements and contributions to nutrition science through impactful research, leadership, mentorship, and service to the field.
- Dr. Nikhil Dhurandhar
 - Received President's Academic Achievement Award at Texas Tech University in recognition of excellence in teaching, research, and service.

Funding

- Title: Semaglutide Impact Assessment: Exploring Health and Wellness Outcomes
 - Funding Agency: CHHS Health and Wellness Grant
 - Total Amount: \$10,000
 - Principal Investigator: Drs. Melissa Chernoff, Shannon Galyean, Marleigh Hefner, and Andrew Shin
- Title: Controlled Feeding with 24 Hour Recall
 - Funding Agency: CHHS
 - Total Amount: \$5,000
 - Principal Investigator: Drs. Nikhil Durandhar, Shannon Galyean, Marleigh Hefner, and Surya Niraula

Presentations, Publications, and Invited Lectures and Boards

American Society for Nutrition (May 2025)

- Sosa-Holwerda A, Oldewage-Theron W, Niraula S, Moustaid-Moussa N, Albracht-Schulte K, Thompson L, Park OH. Study Protocol-Creation and Execution of a Sorghum-Based Intervention for Diabetes Prevention in People With Overweight or Obesity: The Grain in Motion Program.
- Seifishahpar M, Kandasamy A, Thevasagayampillai S, Castillo M, Scoggin S, Kim JH, Gunaratne P, Moustaid-Moussa N. Effects of High Fat Diet on Gut Microbiota in Diet-induced (C57BL/6J) and Genetically (TALLYHO/Jng) Obese Mice.
- Madura B, Menikdiwela K, Guimaraes JP, Seifishahpar M, Scoggin S, Moustaid-Moussa N. Effects of Diets Containing High Fat and Ammoniated Beef on Composition of Gut Microbiota.
- Zahid MK, Jiao Y, Nigam D, Chen F, Scoggin S, Jagadish K, Park OH, Moustaid-Moussa N. Anti-inflammatory effects of sorghum varieties: A food-based approach to address metabolic diseases.
- Zu Y, Adegbile T, Walker T, Scoggin S, Moustaid-Moussa N. Tart Cherry Anthocyanins-Adsorbed Nanoparticles Reduces Inflammation and Adipogenesis in 3T3L1 Adipocytes.
- Morovati A, Yavari M, Ramalingam L, Harris B, Scoggin S, Zu Y, Moustaid-Moussa N. Adipocyte-Microglia Crosstalk in Alzheimer's Disease: The Anti-neuroinflammatory Role of Eicosapentaenoic Acid (EPA).
- Kudchadkar GM, Dhurandhar NV. Gender-Specific Variations in Fat-Free Mass Preservation and Resting Metabolic Rate Adaptations after Weight Loss

- Hia RA, Dhurandhar NV, Hegde V. E4orf1 Enhances Glycemic Regulation, Cognitive Function, and Obesity-Linked Molecular Pathways in a Male Mouse Model of Obesity-Associated Alzheimer's Disease
- Kale T, Hegde V, Dhurandhar NV. A 70 amino acid fragment of Insparin retains its potential to upregulate distal insulin signaling
- Siddik MA, Hegde V, Nateqi M, Dhurandhar NV. Safety Assessment of a Potential Anti-diabetic Agent in a Pre-clinical Model
- Ranjbar S, Rawat P, Hegde V, Dhurandhar NV. Acute and Long Term Effects of Insparin and Pioglitazone on Tissue Distribution of Glucose Uptake.
- Zaroudi M, Shin A, Mokhtari Z, Hosseini E, Malekshah AF, Galyean S. Prebiotics, Probiotics, and Synbiotics: What Are the Impacts on Neurotrophic Factors in the Elderly?.
- Walker TE, Zu Y, Scoggin S, Moustaid-Moussa N. Novel Prebiotic Chitosan Nanoparticles for Enhanced Adsorption of Anthocyanins in Tart Cherry Juice.

Keystone Symposia (April, 2025)

- Dehghani F, Shin AC. Can BCAAs alter sucrose reward? Keystone Symposia, Pacific Grove, CA.

Cross-disciplinary Research Conference (April, 2025)

- Morovati A, Yavari M, Ramalingam L, Harris B, Scoggin S, Zu Y, Moustaid-Moussa N. Adipocyte-Microglia Crosstalk in Alzheimer's Disease: The Anti-neuroinflammatory Role of Eicosapentaenoic Acid (EPA).
- Dehghani F, Shin AC. Can BCAA reduction alter the brain's reward system through FGF21 signaling?.
- Ramezan M, Shin AC. Uncovering sex-specific metabolic vulnerabilities in Alzheimer's disease: A cross-disciplinary approach.

Undergraduate Research Conference (April, 2025)

- Akah S, Nateqi M, Dhurandhar NV, Hegde V. Bioinformatics-Driven Identification of a Unique Immunogenic Antigen of Human Adenovirus 36 for Reliable Detection of Infection and Its Role in Obesity.
- McKenna M, Dehghani F, Shin AC. Can BCAA reduction alter the brain's reward system through FGF21 signaling?.
- Young G, Haque ZF, Shin AC. Evaluation brainstem neuronal function via gene expression in BT2-treated male 5xFAD mice.
- Devaney S, Kale T, Dhurandhar NV, Hegde V. Long-term structural stability of PLGA-PEG Insparin Nanoparticles.
- Anglin S, Benavides M, Galyean S, Alcorn M. The Role of a Digital Health Mobile App in Diabetes Management.
- Abrego M, Sufian HB, Das B, Hegde V. Targeted Inhibition of Methionine Aminopeptidase 2: A Novel Strategy for Anti-Obesity Therapy.
- Patel A, Ranjbar S, Dhurandhar NV, Hegde V. Optimizing Glucose Uptake Protocol for Preclinical Evaluation of Insparin.
- Paulose G, Sultana MA, Hefner M, Hegde V. Malvidin as a Potential Therapeutic Agent for Alzheimer's Disease: Targeting A β -Induced Pathology and Neuroinflammation.

- Taylor T, Hefner M, Hegde V. Metabolic Crosstalk Between Adipose Tissue and Liver Modulated by E4orf1 In Mice.
- Atanode V, Seifishahpar M, Addae K, Scoggin S, Zu y, Moustaid-Moussa N. Effects of Tart Cherry and Fish Oil on Inflammation and Hepatic Fatty Acid Metabolism in Diet-Induced (B6) mice.
- Bedell A, Miah A, Gadalla T, Scoggin S, Zu y, Moustaid-Moussa N. The Effects of Tart Cherry Juice on Longevity and Expression of Related Genes in the C. elegans Models of Alzheimer's Disease.
- Walker TE, Zu Y, Scoggin S, Moustaid-Moussa N. Novel Prebiotic Chitosan Nanoparticles for Enhanced Adsorption of Anthocyanins in Tart Cherry Juice.
- Miah A, Bedell A, Petry H, Gadalla T, Scoggin S, Zu y, Moustaid-Moussa N. Effects of Tart Cherry Extracts on the Lifespan and Gene Expression of C. elegans Models of Alzheimer's Disease.
- Miah A, Zahid MK, Nigam D, Jiao Y, Chen F, Scoggin S, Zu y, Park OH, Jagadish K, Moustaid-Moussa N. Genetic Regulation of Anti-inflammatory Markers by Sorghum Extracts in 3T3-L1 Preadipocytes.
- Gunukula R, Martin E, Ma Y, Javins A, Sprabary K, Jun H. Adipogenic Cocktail Composition Shapes Beige Adipogenesis in Primary Mouse Inguinal Stromal Vascular Fraction Cells.
- Castillo R, Park OH. Effects of Veggie Wins Recipes on Early Aged Children's Vegetable Intake: A Pilot Study.
- Arciniega M, Jefferson C, Park OH. Prevalence and Contributing Factors of Disordered Eating Behaviors Among College Students.

Journal Articles

- Dhurandhar EJ, Maki K, **Dhurandhar NV**, Kyle T, Yurkow S, Hawkins M, Agle J, Ho E, Cheskin L, Sorensen T, Wang X, Allison DB. Food Noise: Definition, Measurement, and Future Research Directions. *Nutrition&Diabetes* 2025.
- Akheruzzaman MD, **Hefner M**, Baller D, Clark S, Feizy Z, Thomas DM, **Dhurandhar NV**. Effect of Unprocessed Red Meat on Obesity and Related Factors. *Obesity* 2025.
- Zoh RS, Thomas DM, Tekwe CD, Vorland CJ, **Dhurandhar NV**, Klurfeld DM, Allison DB. Adjusting for covariates representing potential confounders, mediators, or competing predictors in the presence of measurement error: Dispelling a potential misapprehension and insights for optimal study design with nutritional epidemiology examples. *F1000Research* 2025, 13:827.
- Bose C, Hindle A, Smith SC, Strickland J, Zhang C, Guzman I, Baker A, Ponomarev I, Manczak M, **Shin AC**, Pal R, Singh S, Lawrence JJ. Low-dose dietary vorinostat increases brain histone acetylation levels and reduces oxidative stress in an AD mouse model. *Journal of Alzheimer's disease*, 2025.
- McCready R, Morris C, Antwi-Adjei P, Pourghaed M, Sarangi A, Boles A, Ramirez-Velandia F, Kopel J, Culberson J, Singer J, Ashworth G, Sabbagh MN, Neugebauer V, Decourt B, **Shin AC**, Lawrence JJ. Relationships between diabetes, vitamin D status, depression, and Hispanic ethnicity: A project FRONTIER study. *Nutrition & Diabetes*, 2025 (Accepted)
- Watkins BA, Mitchell AE, **Shin AC**, **Dehghani F**, Shen CL. Reply to Dr. Chirumbolo's Letter to the Editor. *Journal of Nutritional Biochemistry*, 2025 Apr 25; 109935 Online ahead of print
- Watkins BA, Mitchell AE, **Shin AC**, **Dehghani F**, Shen CL. Dietary flavonoid actions on aging, senescence, and applications for health. *Journal of Nutritional Biochemistry*, 2025 May 139: 109862.
- **Ramezan M**, Arzhang P, **Shin AC**. Milk-derived bioactive peptides in insulin resistance and Type 2 diabetes. *Journal of Nutritional Biochemistry*, 2025 Apr 138: 109849.

- **Seifshahpar M**, Kalupahana NS, Kim JH, **Moustaid-Moussa N**. Interplay Between Dietary Bioactive Compounds and Gut Microbiota in Modulating Obesity-Associated Inflammation and Metabolic Dysfunction. *Annual Review of Nutrition*. 2025 May 14;45.
- **Park OH, Sosa-Holwerda A, Niraula SR**, Maki K, Thompson L, **Moustaid-Moussa N**. Exploring College Students' Acceptance of and Behavioral Intentions Toward Different Sorghum-Based Foods. *Foods*. 2025 Mar 20;14(6):1065.

Invited Lectures, Presentations, and Workshop

- Dr. Nikhil Dhurandhar
 - Grounds for Leadership. The Honors College, Texas Tech University
 - Does Obesity Management Need Drugs? CME Presentation for Texas Tech University Health Sciences Center, El Paso, TX.

- Raul Palacios
 - Local Speaking Engagement with Teach Learning and Professional Development Center
 - TLPDC Faculty Workshop: *Intro To Custom AI Tools*
 - TLPDC Faculty Workshop: *AI Use To AI Literacy*
 - TLPDC Faculty Workshop: *Beyond Copy-Paste: Rethinking Discussion Boards in the Age of AI*
 - Texas Academy of Nutrition & Dietetics State Conference: *AI In Dietetics: Past Insights, Present Advances and Future Possibilities*
 - Nevada Academy of Nutrition & Dietetics Annual Conference: *Empowering Future Dietitians: Integrating AI in Nutrition Education*
 - Nutrition & Dietetics Educators and Preceptors Annual Conference: *AI Essentials For Nutrition Educators*
 - American Academy of Family Consumer Sciences: *AI Academy 5-Part Series (2024-2025)* Collaborated with Dr. Melanie Schmidt in FCSE
 - RD Mentorship Spring Professional Development: *AI & Dietetics: What RDs/RD2Bs Need To Know*
 - Teaching & Learning With AI Conference: *Building Custom Chatbots*

Miscellaneous Board and Other Appointments

- Dr. Naima Moustaid-Moussa was the President Elect of the American Society of Nutrition (ASN) for 2025 and will serve as President next year.
- Dr. Andrew C. Shin is appointed as the Chair-Elect of the Neuroscience Section in The Obesity Society (TOS).

In the Media

Students

- Andrea Sosa-Holwerda, Ph.D. Candidate
 - Diet-related silent diseases, Editorial Politics.

Professors

- Dr. Nikhil Dhurandhar
 - How Junk Food Took Hold in the US and What RFK Jr, Us Doing About It. The Epoch Times. April 2025.
https://www.theepochtimes.com/article/junk-food-in-us-what-rfk-jr-is-doing-5840013?utm_campaign=socialshare_email&utm_source=email

Graduate Nutrition Organization (GNO)

Activities that GNO hosted during Spring 2025:

- New students' orientation
- Welcome event
- Fundraising event 1: Panda Express
- Fundraising event 2: Slim Chickens
- Outreach event 1: Give kids a smile
- Outreach event 1: Arbor day
- Professional development: Mindfulness workshop
- Potluck party



Mindfulness workshop



Fundraising event at Panda Express



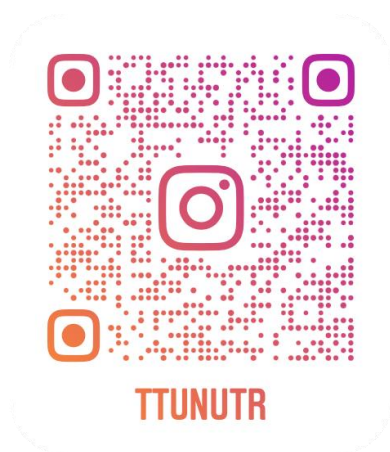
Arbor day



Give kids a smile

Home Page Content

- Department Announcements
 - Learn about spring graduates, new appointments, and lab updates!
- Student Achievements
 - See what kind of awards NS Department students are receiving.
- Faculty Awards
 - Get the scoop on the latest faculty member awards!
- Funding
 - Check out our funded projects.
- Abstracts, Publications, and Invited Lectures and Miscellaneous
 - Discover the revolutionary research and efforts being done by students and faculty!
- In the Media
 - Catch up on all our media-worthy news items.
- Contact Us
 - Share your comments and suggestions. Email the editor Fereshteh Dehghani (fdehghan@ttu.edu) whenever you receive awards or funding; appear in the media, or have lab updates, publications, presentations, or other achievements you wish to share. We look forward to hearing from you!
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