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TEXAS TECH UNIVERSITY
College of Human Sciences

Department of Nutritional Sciences™

Headline Story

The Department of Nutritional Sciences extends its warmest best wishes to Dr. Naïma Moustaid-Moussa and Dr. Heejin Jun as they transition to new roles and opportunities.

Dr. Naïma Moustaid-Moussa was appointed in July 2024 as the inaugural Executive Director of the Institute for One Health Innovation, a joint institute between Texas Tech University (TTU) and Texas Tech University Health Sciences Center (TTUHSC). She is a Paul W. Horn Distinguished Professor and Founding Director of the Obesity Research Institute. Dr. Moustaid-Moussa left the Department of Nutritional Sciences in the summer of 2025 and has relocated her research program to the School of Veterinary Medicine (SVM), with an official start date of September 1, 2025. She is an internationally recognized leader in nutrigenomics, inflammation, and obesity research, with over 180 peer-reviewed publications and research funded by federal agencies, foundations, and industry. Her work focuses on adipose tissue biology, nutrient–gene interactions, and bioactive food compounds in metabolic diseases, cancer, aging, and neurodegenerative disorders, and she has mentored numerous graduate and postdoctoral trainees.

Dr. Heejin Jun's research focuses on understanding how nutrient and energy metabolism are regulated during physiological transitions and reprogrammed in pathological conditions. She earned her PhD in Nutritional Biochemistry from Korea University in Seoul, South Korea, and completed her postdoctoral training at the Pennington Biomedical Research Center and the University of Michigan. Dr. Jun joined the Department of Nutritional Sciences at Texas Tech University as an Assistant Professor in 2021. She has recently moved to the University of Nebraska–Lincoln, where she is now an Associate Professor.



Dr. Naïma Moustaid-Moussa



Dr. Heejin Jun

Nutritional Sciences Department Welcomes New Faculty Members

Elyvine I. Gasana, Ph.D.

The Department of Nutritional Sciences is pleased to warmly welcome Dr. Elyvine I. Gasana as an Assistant Professor beginning Fall 2025. A proud alumna of our department, Dr. Gasana earned her PhD in Community Nutrition in May 2025. She is a community nutrition researcher with expertise in designing, implementing, and evaluating community-based interventions to prevent and manage nutrition-related issues among low-income and hard-to-reach populations. Her work focuses on developing culturally appropriate strategies to improve health and nutrition outcomes in diverse communities. Welcome back to Texas Tech University, Dr. Gasana- we are excited to have you join our faculty!

Elisa Larson, PhD, MPH, RDN

The Department of Nutritional Sciences is thrilled to welcome Dr. Elisa Larson as an Associate Professor beginning Fall 2025. Dr. Larson is a behavioral epidemiologist with expertise in child and adolescent nutrition. Her research and teaching focus on food and nutrition security, food literacy, and eating behavior patterns, with the long-term goal of improving cardiometabolic health among young people and families. Dr. Larson completed her doctoral training in nutrition and fellowship training in adolescent health at the University of Minnesota. She has extensive experience coordinating cohort studies of eating and physical activity behaviors among youth and conducting research on school wellness policies and practices. As a former first-generation college student, Dr. Larson is passionate about mentoring scholars and supporting their development in scientific writing and research skills. Welcome to Texas Tech University, Dr. Larson- we are excited to have you join our faculty!



Dr. Elisa Larson



Dr. Elyvine I. Gasana

Oak-Hee Park, Ph.D., RD

The Department of Nutritional Sciences is thrilled to warmly welcome Dr. Oak-Hee Park as an Assistant Professor beginning Fall 2025. Dr. Park earned her doctoral degree from the Department of Nutrition, Hospitality, and Retailing in 2010 and completed her postdoctoral fellowship and served as a senior research associate, with six years of experience in community-based participatory research at the College of Health & Human Sciences. She was promoted to Research Assistant Professor in 2018 and appointed as Assistant Professor in the Department of Nutritional Sciences in 2025. Welcome to Texas Tech University, Dr. Park- we are excited to have you join our faculty!

Murali Vijayan, Ph.D.

The Department of Nutritional Sciences is thrilled to warmly welcome Dr. Murali Vijayan as an Associate Professor beginning Fall 2025. Dr. Vijayan's research focuses on uncovering novel therapeutic strategies for Alzheimer's disease, ischemic stroke, and age-associated neurodegenerative disorders. His work explores the complex interactions among genetic risk factors, mitochondrial dysfunction, impaired RNA regulation, and metabolic stress that contribute to synaptic failure and neurodegeneration. Given the brain's high energy demands and vulnerability to oxidative damage, his research aims to advance our understanding of mechanisms underlying neurodegenerative disease and identify potential interventions. Welcome to Texas Tech University, Dr. Vijayan- we are excited to have you join our faculty!



Dr. Oak-Hee Park



Dr. Murali Vijayan

Sheikh M. Shariful Islam, MBBS, MPH, PhD, FESC

Dr. Shariful Islam is a Professor in the Department of Nutrition at Texas Tech University and a globally recognized leader in digital health innovation, with more than 20 years of experience spanning clinical medicine, public health, and artificial intelligence (AI). His research integrates wearable technologies, electronic health records, and behavioral science to improve cardiovascular and metabolic health outcomes. Dr. Islam has secured over \$8.5 million in competitive research funding and has contributed to global health initiatives, including the World Health Organization's mDiabetes and mHypertension programs. He has developed patented AI models for cardiovascular disease prediction, implemented wearable technologies to enhance treatment adherence, and led projects that reduced hospital readmissions among patients with heart disease. His work has been published in leading journals such as *The Lancet*, *BMJ*, *European Heart Journal*, and *Diabetes Care*, and he is ranked among the top researchers in mobile health, medical AI, and digital health. Welcome to Texas Tech University, Dr. Islam- we are excited to have you join our faculty!



Dr. Shariful Islam

Acknowledging our past NS Newsletter editor and Social Media Manager

On behalf of the team, we would like to extend our gratitude to Fereshteh Dehghani for her incredible contributions as the Social Media Manager and Newsletter Editor. Her dedication and efforts have significantly enhanced our communication and outreach, and her passion for editorial responsibilities has been truly inspiring. As she transitions from this role to focus on other responsibilities and her dissertation project, we want to acknowledge her hard work and commitment. We wish her continued success and look forward to seeing the remarkable progress she will undoubtedly achieve in her research.



Fereshteh Dehghani

Department Announcements

Class of 2025 Graduation Celebration

The Nutritional Sciences (NS) Department celebrated our Fall 2025 graduates on December 12, 2025.

- Master of Science in Nutritional Sciences
 - Casen Bigham
 - Nina De Mol Van Otterloo
 - Claire Brown
 - Heshasvi Marepally
- Doctorate in Nutritional Sciences
 - Jacob Kipruto Korir
 - Ashti Morovati
 - Julieta Andrea Sosa Cuevas de Holwerda
 - Sara Ranjbar

Nutrition & Metabolic Health Initiative (NMHI)

This semester, two new programs were launched at Nutrition and Metabolic Health Initiative under the leadership of our Student Providers.

- Clinical Connections, led by Reva Ann Rudolph, a master's student in Nutritional Sciences, was created to provide networking opportunities for students to connect with peers and professionals who speak at or attend the meetings.
- Community Outreach, led by Anna Nelson, a doctoral student in Nutritional Sciences, hosted several events, including "Let's Taco About Mental Health" at the TTUHSC Health Fair and "A Nutritious and Delicious" learning experience for TTU STEM CORE and K-12 students.

Both programs have been highly successful, and we look forward to seeing their continued impact in the semesters ahead. This success would not be possible without the dedication of our volunteers, students, and staff at NMHI, whose support makes these programs thrive.



Clinical Connections



Let's Taco About Mental Health

Master's Theses and Doctoral Dissertations

- Casen Bigham
 - Degree: M.Sc.
 - Thesis Title: Controlled feeding with 24 hour recall
 - Dissertation Committee: Dr. Shannon Galyean (Committee Chair), Dr. Nikhil Durandhar, Marleigh Hefner, and Dr. Surya Raj Niraula.
- Benjamin Madura
 - Degree: Ph.D.
 - Dissertation Title: Mechanisms mediating protective metabolic effects of beef ammoniation in diet-induced obese male and female mice
 - Dissertation Committee: Dr. Naima Moustaid Moussa (Committee Chair), Dr. Yujiao Zu, Dr. Heejun Jun, Dr. Nishan Kalapahana, Dr. Jannette Dufour and Dr. Leslie Thompson.
- Ashti Morovati
 - Degree: Ph.D.
 - Dissertation Title: Mechanisms linking adipose tissue inflammation to neuroinflammation: effects of fish oil and role of gut microbiota in an obese Alzheimer's disease mouse model
 - Dissertation Committee: Dr. Naima Moustaid Moussa (Committee chair), Dr. Yujiao Zu, Dr. Heejin Jun, Dr. Mohamad Fokaar, and Dr. Nishan Kalapahana.

- Jacob Korir
 - Degree: Ph.D.
 - Dissertation Title: Towards effective actions for better nutrition outcomes in Kenya: analysis of multisectoral nutrition governance status and drivers
 - Dissertation Committee: Dr. Wilna Oldewage-Theron (Committee Chair), Dr. Nikhil Dhurandhar, Dr. Surya Raj Niraula, Dr. Oak-Hee Park, Dr. Malinda Colwell, Dr. Sung-Wook Kwon and Dr. Wanjiku Gichohi.

- Andrea Sosa
 - Degree: Ph.D.
 - Dissertation Title: A tailored nutrition education intervention to promote sorghum consumption and explore its potential in diabetes prevention
 - Dissertation Committee: Dr. Naima Moustaid-Moussa (Committee Chair), Dr. Oak-Hee Park (Co-Chair), Dr. Suria Raj Niraula, Dr. Leslie Thompson, and Dr. Kembra Albracht-Schulte.

- Sara Ranjbar
 - Degree: Ph.D.
 - Dissertation Title: Preclinical therapeutic validation of Insparin
 - Dissertation Committee: Dr. Nikhil Dhurandhar (Committee Chair), Dr. Vijay Hegde, Dr. Heejin Jun, Dr. Jannette Dufour, and Dr. Neha Mittal.

Student Achievements

- Marjan Ramezan was awarded a Doctoral Dissertation Completion Fellowship by the graduate school

Funding

- Title: Understanding Clinician Perceptions of Obesity Medications to Inform Evidence-Based Health Communication Strategies
 - Funding Agency: College of Health and Human Sciences
 - Total Amount: \$20,000
 - Principal Investigator: Dr. Shannon Galyean; Co-Investigator: Dr. Nikhil V Dhurandhar

- Title: Targeted Inhibition of Methionine Aminopeptidase 2: A Novel Strategy for Anti-Obesity Therapy
 - Funding Agency: College of Health and Human Sciences
 - Total Amount: \$7,500
 - Principal Investigator: Dr. Vijay Hegde

- Title: Novel combinatorial therapy to treat obesity
 - Funding Agency: College of Health and Human Sciences
 - Total Amount: \$18,000
 - Principal Investigator: Dr. Andrew Shin

Patents received

- **Dhurandhar, N., Hegde, V.**, Das, B., "SMALL MOLECULE ANALOGS OF THE PROTEIN E4ORF1 IN THE TREATMENT AND PREVENTION OF METABOLIC DISORDERS," Patent Cooperation Treaty Regular Patent European Pat. App. No. 20738769.7. (Approved October 2025).
- **Dhurandhar, N., Hegde, V.**, "A therapeutic treatment for Alzheimer's Disease," United States Regular Patent US 12,514,901 B2. (Approved November 2025).

Presentations, Publications, and Invited Lectures and Boards

American Diabetes Association (June, 2025)

- **Sara Ranjbar**, Aachal Patel, Vijay Hegde, and Nikhil V. Dhurandhar. In a long-term preclinical study, the novel anti-diabetic peptide Insparin produces better glycemic control than pioglitazone and promotes fat loss, Chicago, IL.

Gordon Research Conference (June, 2025)

- **Haque ZF**, Shah H, Gannaban RB, Shin AC. Can BCAAs serve as early indicators for Alzheimer's disease progression? Alzheimer's Disease Gordon Research Conference, Ventura, CA.
- **Ramezan M**, Loya-Silva A, Shin AC. Sex-specific differences in hypothalamic neuronal glucose metabolism in response to amyloid beta toxicity. Alzheimer's Disease Gordon Research Conference, Ventura, CA.

Innovation for Healthcare Access (October 2025)

- Wang, X., **Dhurandhar, N.** A Brief Psychometric Tool to Measure Food Noise and Its Relevance to BMI, Rice University, Houston, TX

The Obesity Society (November, 2025)

- **Dehghani F**, Haque ZF, Fotros D, McKenna M, Shin AC. Chronic BCAA exposure shapes sucrose preference and reward behavior, Obesityweek, Atlanta, GA **(Oral presentation)**
- **Anna Nelson**, Seyed Ali Abbas Hashemi, Reva Ann Rudolph, Nikhil V Dhurandhar, Vijay Hegde, and Marleigh Hefner. Sexually Dimorphic Response to Diet-Induced Metabolic Dysfunction-Associated Steatotic Liver Disease in Mice **(Poster)**
- **Sara Ranjbar**, Priyanka Rawat, Vijay Hegde, and Nikhil V. Dhurandhar. Effect of Subcutaneous Delivery of Insparin on Liver Function Is Superior to That of Pioglitazone **(Poster)**
- **Gaurav M. Kudchadkar**, Rohan N. Dhurandhar, Leah D. Whigham, Nikhil V. Dhurandhar. Translating Current Obesity Care Guidelines Into a Real-World Primary Care Tool **(Poster)**

Society for Neuroscience (November, 2025)

- **Dehghani F**, Haque ZF, Fotros D, Shin AC. Can BCAA-lowering compound reduce sucrose intake? Society for Neuroscience, San Diego, CA **(oral presentation)**.

- **Ramezan M**, Ali Ahmadi M, Shin AC. Sex-specific metabolic remodeling in the hypothalamus during early Alzheimer's disease. Society for Neuroscience, San Diego, CA.

Journal Articles

- Thompson TB, **Shin AC**, Decourt B, Wang Y, Vigil BZ, Solodukhina A, Ranasinghe S, Young RS, **Hegde VK**, **Moustaid-Moussa N**. Linking diet to mathematics is a new frontier in interdisciplinary Alzheimer's disease research. *Frontiers in Nutrition*, 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.
- **Mullins CA**, Gannaban RB, Kramer A, Shah H, Haque ZF, Ramezan M, Dehghani F, Palaniyappan AP, Bowers F, MohanKumar SMJ, MohanKumar PS, **Shin AC**. Early BCAA reduction delays the onset of cognitive decline in a mouse model of Alzheimer's disease. *Journal of Alzheimer's disease*, 2025.
- Watkins BA, Watkins JR, **Shin AC**, Zhang G, Cremonini E, Niraula SR, Rucker RB. Application of AI-assisted methodology to evaluate diet and ingredient formulations for rodent models in nutrition and health research. *Journal of Nutritional Biochemistry*, 2025.
- 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.
- Farhana F, Sultana MA, Hia RA, **Hegde V**. Postmenopausal sarcopenia and Alzheimer's disease: The interplay of mitochondria, insulin resistance, and myokines. *Neuroscience & Biobehavioral Reviews*, 2025.
- Siddik, M.A.B., Feizy, Z., Nateqi, M. **Hegde V**, **Dhurandhar NV**. Pre-clinical studies show anti-diabetic effect of INSPARIN, a protein derived from the E4orf1 gene of a human adenovirus. *Nutr. Diabetes*, 2025.
- **Dhurandhar EJ**, Maki KC, Dhurandhar NV, Kyle TK, Yurkow S, Hawkins MAW, Agley J, Ho EH, Cheskin LJ, Srensen TIA, Wang XR, Allison DB. Food noise: definition, measurement, and future research directions. *Nutr Diabetes*, 2025.
- Akheruzzaman M, **Hefner M**, Baller D, Clark S, Feizy Z, Thomas DM, **Dhurandhar NV**. Effect of unprocessed red meat on obesity and related factors: A systematic review and meta-analysis. *Obesity (Silver Spring)*, 2025.
- Korir J, Gichohi-Wainaina WN, **Niraula S**, **Dhurandhar N**, **Oldewage-Theron W**. Improved Multisectoral Nutrition Governance in Kenya is Influenced by Ministry Affiliation and Level of Nutrition Prioritization in Line Ministries. *Food Nutr Bull*, 2025.

Invited Lectures, Presentations, and Workshops

- Dr. Nikhil V Dhurandhar
 - Transforming Obesity Management Globally: Clinical Perspectives from The Obesity Society. "Obesity management," The Obesity Society.

- Dr. Andrew Shin
 - Research Forum; *Discussion on Grant Writing*, College of Health & Human Sciences, Texas Tech University
 - Graduate Nutrition Organization (GNO); *Microbes, Brain & Obesity: Bridging Nutrition & Microbiology*, Texas Tech University
 - Biology Seminar Series; *Amino acids gone rogue – AgRP neurons linking BCAAs to insulin resistance*, Texas Tech University

- Dr. Allison Childress
 - Aging Out Seminar; *Healthy Eating on a Budget*.
 - Engaged Scholarship Consortium International Conference; “Revealing Data-Driven Insights: College-Level Health and Human Sciences Clinical Training”, Roanoke, VA, Oct 2025.
 - Engaged Scholarship Consortium International Conference; “Culinartistry with sam™: Merging Engaged Scholarship & Commercialization for Impactful Innovation”, Roanoke, VA, Oct 2025.

- Raul Palacios
 - Dietitian Connection AI Symposium; “Future-proofing dietetics: Integrating AI into your practice and ethical implications”.
 - AI Bots & Bites; “Dietetics in Business Communications”.
 - National Food & Nutrition Conference & Expo Sessions; “First Five Years : Bridging The Gap Between Graduation and Real-World Practice”.

Miscellaneous Board and Other Appointments

- Dr. Andrew C. Shin has been promoted to Associate Professor.
- Dr. Andrew C. Shin served as a grant reviewer for the NIH POMD study section and was appointed guest editor for *Methodologies for Studying Autonomic Nervous System Function in Animals* (JoVE) and *Nutrition, Psychology and Brain Health* (Frontiers in Nutrition) in 2025.
- Dr. Allison Childress was appointed to the Texas Department of Licensing and Regulation Dietitians Advisory Board.

In the Media

Professors

- Dr. Nikhil V Dhurandhar
 - Red meat for food fear and false obesity stories; [Red Meat for Food Fear and False Obesity Stories - ConscienHealth](#).
 - Unprocessed red meat: Does it really wreck your waistline; [Unprocessed red meat: Does it really wreck your waistline?](#)
 - Unprocessed red meat has no notable effect on obesity and related diseases; [Unprocessed Red Meat Has No Notable Effect on Obesity and Related Diseases | July 2025 | Texas Tech Now | TTU](#)
 - Lifting Food Noise Out of Pop Diet Chatter'; [Lifting Food Noise Out of Pop Diet Chatter - ConscienHealth](#)

- Study finds no link between obesity, unprocessed meat; [Study finds no link between obesity, unprocessed meat | Western Livestock Journal](#)
- Degrees of Science: A Scientific look at the link between Beef and Obesity; [A Scientific look at the link between Beef and Obesity](#)
- Beef and obesity. In August 2025: 174 mentions and 70.8 million total reach- TV

- Dr. Allison Childress
 - Was featured on the Yumlish podcast discussing weight management and type 2 diabetes in women and girls across the lifecycle; [Lifelong Balance: Managing Diabetes & Weight Through the Years.](#)
 - Was quoted in an article for Outside; [What to Know About Pumpkin's Anti-Inflammatory Properties.](#)
 - Was quoted in 2 articles for Health.com; [6 Ways to Curb Your Sweet Tooth if You're Always Craving Sugar](#) and [Got a Long Workout? What to Eat During Your Run, Ride, or Hike to Stay Energized](#)

- Raul Palacios
 - Was quoted in an article for loseit.com: <https://www.loseit.com/articles/things-to-know-before-using-ai-to-create-a-weight-loss-plan/>

Activities that GNO hosted during Fall 2025

- Welcome Mixer
- Faculty Panel on Research Funding
- Seminar: Microbes, Brain & Obesity
- Fundraising event: Raising Cane's
- Outreach event 1: Family STEM Night
- Outreach event 2: Health & Human Sciences Day
- Halloween Gathering
- Global Flavors Potluck



Family STEM night



Seminar: Microbes, Brain & Obesity



Fundraising



Global Flavors Potluck



Welcome Mixer

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 Tanvi Kale (takale@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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