Nutritional Sciences DIGEST

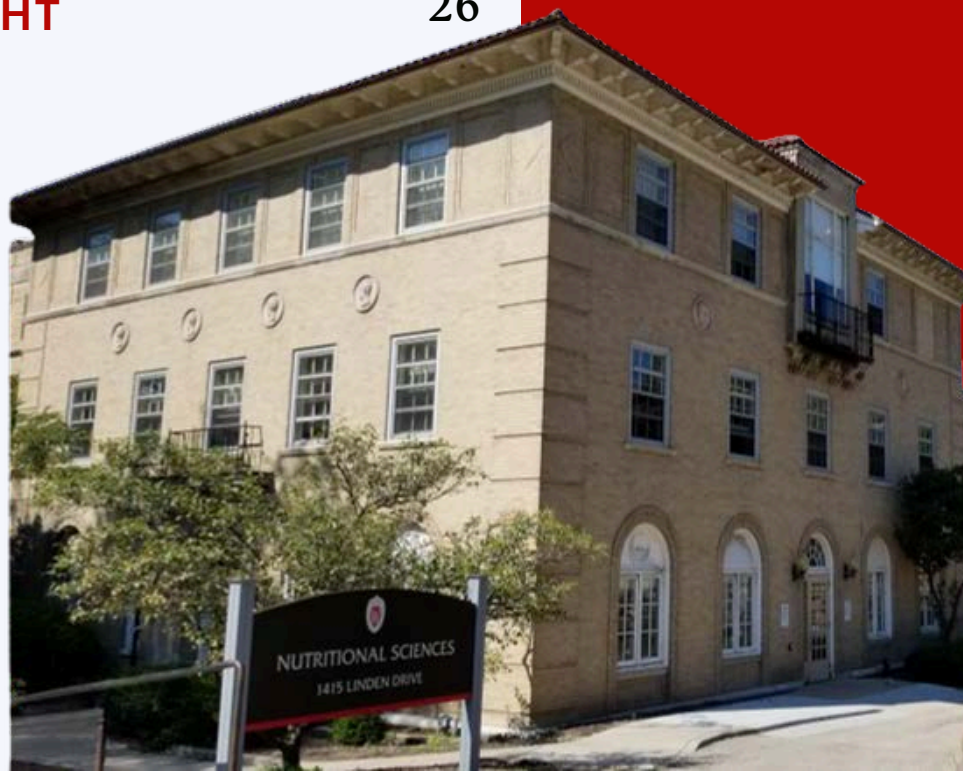
Est. 1969

Department of Nutritional Sciences
University of Wisconsin-Madison

Fall 2025 Edition

Table of Contents

Cover photo: T32 MANTP Retreat at UW-Madison, November 1-2, 2024



A Letter from the Chair:
Scott Rankin

Dear Nutritional Sciences Colleagues, Alumni, and Friends,

I'm sure you recall the rhythm of the Fall semester - the final exam schedule, the welcome quiet that follows, and the anticipation of restful time with family and friends. Here in Nutritional Sciences, we wish each of you a wonderful holiday season and the chance to reflect on what has been a most eventful year. I'd like to share a few thoughts about how our department, and higher education more broadly, have been navigating through this challenging climate.

As we move through another academic year, I find myself reflecting on how much has changed within higher education and within our own community.

It has been, by all measures, a challenging season. Shifts in enrollment patterns, financial pressures across campuses, and the growing complexity of our teaching and research missions have required all of us to rethink long-standing assumptions about how we work and what our students need. These trends are real, and they have asked a great deal of everyone.

And yet, even in this climate, I remain encouraged by the resilience and character of our department and the forward-facing optimism to build new paths to achieve our goals. Faculty and staff continue to secure competitive grants, publish impactful scholarship, and redesign courses for accessibility and content. Our dedicated staff have kept our operations steady despite heavier workloads and shifting expectations. Our undergraduate and graduate students remain curious, adaptable, and deeply engaged in the work that brought them here in the first place.

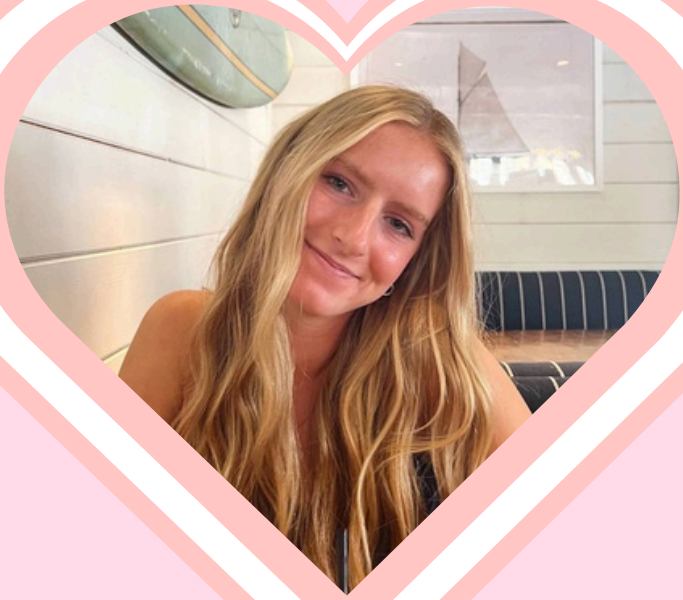
The challenges before us are not small. We are navigating budget constraints, evolving workforce demands, and national conversations that sometimes undervalue the role of higher education. In response, I see colleagues leaning into collaborations, identifying shared priorities, and thinking more intentionally about the future we want to create. Our hiring initiatives, interdisciplinary teaching efforts, and renewed partnerships across campus and with industry are meaningful signs of resilience in an uncertain time.

Most importantly, we remain anchored by a simple truth: our work matters. Preparing the next generation of leaders, producing research that advances knowledge and improves lives, and serving our communities are purposes that endure well beyond the headlines. Thank you for your continued commitment, creativity, and openness to change. I am genuinely optimistic about where we are headed and grateful for the people who are helping shape a brighter future. Please don't hesitate to reach out or even drop in should your travels bring you back to Madison this coming year.

Warm regards,
Scott Rankin, Chair, Department of Nutritional Sciences

Cardiacs on Campus

With Kelsey King



Kelsey King is a Senior studying Nutrition and Dietetics with minors in Athletic Healthcare and Global Health. She is the current Co-President of Cardiac on Campus, a student-led nonprofit here at UW-Madison. Cardiacs on Campus recently donated two AEDs to the city of Madison in late August. The AEDs were placed at Library Mall, part of the UW-Madison campus and a popular area downtown, and James Madison Park. Read more about the installation here! King combines her passion for heart health with her career ambitions as a pre-PA student.

Why is it important for students to have access to AEDs?

Sudden cardiac arrest can happen to anyone, regardless of age or health history, and immediate access to an AED often determines survival. College campuses are high-traffic environments where young people, faculty, and community members gather, so ensuring AED accessibility is critical. It gives bystanders the tools they need to act quickly and save lives.

Why are you so interested in heart health?

My interest in heart health relates to family ties of health problems relating to the heart, my interest in the anatomy and physiology of heart and interest in emergency medicine. My nutrition background has shown me how diet plays a powerful role in prevention, while my future goal of becoming a Physician Assistant will allow me to take a more hands-on role in both treatment and education. I see heart health as a space where I can make an immediate difference—whether that's through prevention, emergency response, or long-term care.

What made you decide to join/start Cardiac on Campus?

I wanted to get involved in a healthcare-related club, but I didn't want it to be tied to just one specific field like pre-med or pre-PA. Cardiac on Campus stood out because it focuses on heart health and emergency preparedness in a way that's relevant to everyone, no matter their career path. What really motivated me to join was the nonprofit nature of our organization—the impact of our work extends far beyond campus. By placing AEDs, providing free CPR certifications and free ECG screenings, we're building a safer community, and the ripple effect of that is vast. It's meaningful to know the work we do has the potential to save lives both here at the university and in the larger community.

What do you want to do post-grad?

My plan is to attend physician assistant school. I believe the PA role will allow me to integrate my clinical skills as a nursing assistant with my nutrition background to provide holistic, patient-centered care. I want to be able to treat patients while also counseling them on preventive strategies like diet, exercise, and lifestyle choices.

Can you use your education in dietetics for heart health?

Absolutely. Nutrition is a cornerstone of heart health, and my degree has given me the scientific foundation to understand how dietary patterns influence risk factors like hypertension, hyperlipidemia, and diabetes. While Cardiac on Campus is focused on Sudden Cardiac Arrest, my background on MNT for other conditions will make me a more knowledgeable provider.

What is Cardiac on Campus going to do next? More AEDs?

Up next for Cardiac on Campus is our annual Red Tutu Trot which is a 5k to fundraise for all of our community initiatives. It will take place on the lakeshore path on October 5th. We use the money generated from this event for CPR classes, ECG drives and to finance more AED placements.

Visit cardiaconcampus.com or @cardiaconcampus on Instagram for more information about upcoming events

NIH T32 Training Grants Renewed for the Department of Nutritional Sciences

THIRTY-FIRST YEAR OF FUNDING

The Department of Nutritional Sciences is pleased to report that the NIH renewed its' Nutrition and Metabolism T32 training grant, now in its 31st year of funding. Initially funded to support 3 graduate students and 3 postdoctoral scientists through the efforts of John Suttie in 1994, the Metabolism and Nutrition Training Program (MANTP) expanded through the efforts of subsequent T32 Directors Denise Ney (1999-2008) and Rick Eisenstein (2008-2025) so that it now supports 5 graduate students and 4 postdoctoral scientists. MANTP, one of the largest nutrition-linked NIH-funded T32 programs in the country, will receive $3.22 million over 5 years.

MANTP has evolved over the years to now support trainees in the labs of 30 faculty trainers from 11 departments across campus. To expand its impact on our discipline, MANTP trains graduate students from any campus program, provided their research focuses on nutrition-related biomedical research. To further impact our field, one position is dedicated to training doctoral students pursuing or who have earned a RDN, and another is reserved for a resident MD in Surgery or Gastroenterology seeking a career as a physician-scientist. Since its inception, MANTP has trained 49 students, 46 postdoctoral scientists, including 7 MDs. MANTP provides unique training opportunities for its members, including the annual joint T-32 retreat with the University of Chicago's "Digestive Health and Disease" T32. Most recently, the retreat, organized by Rick and MANTP coordinator Caitlin Seifert Irland, focused on "Precision Nutrition" and "Public Engagement in Science," with speakers from both T32s, two National Academy of Sciences members, and representatives of science literacy programs.

Rick stepped down as Director this year and is pleased that Nutritional Sciences faculty members Guy Groblewski and Eric Yen assumed the role of Co-Directors. Over the next five years, MANTP will support trainees in digestive biology, nutrient metabolism, the gut microbiome, obesity and chronic disease, systems biology, and precision nutrition—all fields that are central to solving modern public health challenges.

"We are thrilled by the renewal of the Metabolism and Nutrition Training Program, reaffirming the Department of Nutritional Sciences' leadership in nutrition and metabolism research. For more than 30 years, sustained NIH support has fueled our mission to mentor and equip trainees with the scientific foundation and skills needed to drive solutions to the most pressing challenges in nutrition and metabolic health," said Dr. Eric Yen.

Dr. Eric Yen

Associate Professor and Co-Director of MANTP

How Healthy Are Peaches?

By Isobel Whitcomb

There's a reason you need a napkin when you bite into a ripe summer peach — the fruit is nearly 90 percent water. In addition to helping you stay hydrated, peaches contain nutrients that keep your eyes healthy and may reduce chronic disease risk. Here are some of their biggest benefits, plus some recipes from New York Times Cooking.

Their potassium is helpful on summer days.

Getting fluids from fruit and other food sources is just as good as drinking a glass of water, said Diane Stadler, the director of the graduate programs in human nutrition at Oregon Health & Science University. In addition to their high water content, peaches contain a modest dose of the electrolyte potassium, which you sweat out during exercise and on hot days, she said. Electrolytes like potassium help your muscles contract, your heart pump and your neurons fire. One small peach contains around 180 milligrams of potassium, which is about five percent of the recommended daily amount. (By comparison, one Nuun electrolyte tablet contains 125 milligrams.)

They're rich in flavonoids and carotenoids.

"Peaches combine two groups of pigments that you don't often see together in other fruits and vegetables," said Mary Ann Lila, a distinguished professor in the Plants for Human Health Institute at North Carolina State University. Their signature sunset colors come from flavonoids and carotenoids — chemicals plants produce as a defense mechanism against insects and the harmful effects of sunlight. Research suggests that people who eat a diet rich in flavonoids, which produce peaches' red and pink shades, tend to have a lower risk of heart disease. Flavonoids can also help keep memory and cognition sharp, Dr. Lila said. After gut bacteria break them down, they release chemicals into the bloodstream that can cross into the brain.

Dr. Lila has studied flavonoids (using wild blueberry powder, not peaches), and her research has found that a diet rich in them may improve reaction times, motor skills and information processing in older adults. Carotenoids, responsible for peaches' orange tones, are powerful antioxidants, added Beth Olson, an associate professor of nutrition at the University of Wisconsin-Madison. Antioxidants help reduce disease risk by binding to free radicals, molecules that can cause damage to our tissues and trigger inflammation.

They provide a modest amount of vitamin A.

Carotenoids have a second benefit: The body can convert them into vitamin A. A small peach contains the equivalent of 35 micrograms of vitamin A, around four percent of the recommended daily amount. Vitamin A is best known for its role in eye health and vision. That's because it's a key building block in the retina, the part of the eye that converts light into information that it sends to the brain, Dr. Lila said. It's also crucial for cell division, Dr. Olson said, including those cells that need to replace themselves frequently, like immune and skin cells.

What's the best way to eat peaches?

To maximize the nutritional benefits, don't peel them, Dr. Lila said: "Most of the good stuff is in the skin." That includes much of the vitamin A and polyphenols, plus a few grams of heart- and gut-healthy fiber. Before you tuck into that peach, run it under cold water and dry it with a paper towel; that should be enough to remove pesticides and potentially harmful bacteria, Dr. Stadler said. While nothing beats a fresh peach, frozen or canned varieties are also nutritious, as long as there is no added sugar, Dr. Olson said. Just keep in mind that you won't get the health benefits of the skin.

Read more here!

Particles for Humanity Begins Enrollment at Zambia Site for Human Absorption Study

By the Sherry Tanumihardjo Lab

Cambridge, MA (September 10, 2025). Particles for Humanity has begun enrolling participants at a Zambian study site for its human absorption study of PFH-VAP, a stable formulation of vitamin A. The study is designed to confirm that PFH-VAP's improved stability enables more vitamin A to be delivered into the human body after consumption. Particles for Humanity is conducting the study in partnership with the University of Wisconsin–Madison in the United States and the National Health Research and Training Institute (NHRTI) in Zambia.

Zambia is the second and final site for this study, bringing the research one step closer to completion. This marks a key milestone in the company's mission to combat vitamin A deficiency through large scale food fortification. Enrollment targets at the University of Wisconsin–Madison site, the study's first site, have been successfully met.

In this human study, participants will consume bouillon fortified with PFH-VAP as well as bouillon fortified with vitamin A from a commercial manufacturer. PFH-VAP's improved stability is expected to result in higher vitamin A levels in the body compared to the commercially sourced alternative. The study has received Institutional Review Board (IRB) approval from the University of Wisconsin–Madison, NHRTI IRB and the National Health Research Authority, and the Zambia Medicines Regulatory Authority.

"We are thrilled to start enrollment in Zambia, the second and final enrollment site in this important study. Vitamin A is integral to the health of our population, and we are eager to help Particles for Humanity deliver more of the lifesaving nutrient to those who need it most," said Dr. Justin Chileshe, Research Scientist at the NHRTI and co-Principal Investigator on the study.

PFH-VAP is a more stable formulation of vitamin A that was designed for use in large scale food fortification, an intervention that can combat many types of malnutrition including vitamin A deficiency. In hot and humid conditions, like those found in many parts of Africa, vitamin A is unstable and much of it is lost before reaching consumers. PFH-VAP retains 70% of its vitamin A after one year of storage in bouillon in these conditions, a 4x stability advantage over the commercially sourced product used in this study. Adding PFH-VAP into foods like bouillon can help save lives and get more vitamin A to the people who need it most.

The study's Principal Investigator is Dr. Sherry Tanumihardjo, Professor of Nutritional Sciences at the University of Wisconsin–Madison. The study is registered on ClinicalTrials.gov under ID NCT06438562.
Particles for Humanity transforms early-stage medical technology into products for people living in low and lower-middle income countries, with 100% of funding from philanthropy. Its rigorous product development process is based on end-user input and is focused on financially sustainable product opportunities. Visit www.particlesfh.com or contact info@particlesfh.com

FNCE 2025

The Food and Nutrition Conference and Expo (FNCE) took place this year in Nashville, TN on October 11th-14th. The Department of Nutritional Sciences was able to promote graduate programs to prospective students and share our research and Badger pride with people from around the world. The Department had a booth on the expo floor and we were able to catch up with a great number of current students and alumni. We also connected with our partnership programs - Aramark and the Mayo Clinic.


Oh! The Places Bucky will go!
NASHVILLE, TN
FNCE 2025
Academy of Nutrition and Dietetics
FNCE 2025
Food & Nutrition Conference & Expo
COUNTRY MUSIC HALL OF FAME AND MUSEUM NASHVILLE

Fall 2025 Recipe

Pumpkin Cream Cheese Muffins

Ingredients

- ☐ ½ cup light brown sugar
- ☐ 1 cup granulated sugar
- ☐ ½ cup vegetable oil
- ☐ 2 whole eggs
- ☐ 7 ½ oz pumpkin puree this is ½ of one 15 oz can
- ☐ 2 cups all-purpose flour
- ☐ ¾ teaspoons baking soda
- ☐ ¾ teaspoons baking powder
- ☐ ¾ teaspoons kosher salt
- ☐ 1 ½ tablespoons pumpkin spice mix

Filling

- ☐ 3 oz Philadelphia cream cheese
- ☐ ¾ tablespoons granulated sugar
- ☐ ¼ teaspoon vanilla extract

Instructions

Preheat oven to 350°F. Line 12 standard muffin tins with liners.

In a medium bowl beat cream cheese with sugar until smooth and then add vanilla. This can also be done easily by hand if the cream cheese is slightly softened.

Combine flour, baking soda, baking powder, salt and pumpkin spice in a medium bowl. Whisk to incorporate, set aside.

Whisk together light brown sugar, sugar, oil, and eggs. Whisk in puree.

Fold in the dry ingredients until just combined.

Scoop or spoon muffin batter between the prepared liners. Using a small cookie scoop (about an inch wide), scoop cream cheese mixture into the center of each and press down slightly.

Bake in preheated oven about 20 minutes or until a toothpick comes out with a few clinging crumbs or they spring back lightly to the touch.

Recipe created by Chef Lindsey Farr, accessed by Nutrisci Digest Editor Madeline Wooten

Recipe website here!

BETH ZUPEC-KANIA RDN, CN

FALL 2025 ALUMNI HIGHLIGHT

By Nutritional Sciences Digest Editor Madeline Wooten

Beth graduated from the University of Wisconsin-Madison in 1981 from the school of Agriculture majoring in Nutritional Sciences and a minor in technology. She did an internship during her ndergraduate which allowed her to take the national dietetics exam and allowed her to start a professional position right after graduation.

Beth started to work at the Wisconsin Children's Hospital in 1990 and became experienced in ketogenic diet therapy for children with epilepsy. Following her passion, she left the hospital after 20 years of work. She started her own private practice where she was able to go out and speak, write, and train hospitals about Ketogenic Diet Therapy.

Beth also started consulting for the Charlie Foundation at this time. The Charlie Foundation is a non-profit organization for ketogenic therapies. In 1993, 11-month-old Charlie Abrahams developed difficulty controlling epilepsy. As a last resort, while Charlie was experiencing multiple daily seizures and multiple daily medications, his parents turned to a Ketogenic Diet for help. The diet worked.

Charlie became seizure-free and drug-free within a month. He was on the diet for five years and now eats whatever he wants. He has never had another seizure. The Charlie Foundation for Ketogenic Therapies was founded in 1994 to provide information about diet therapies for people with epilepsy, other neurological disorders, and select cancers. Beth became the voice of this foundation.

The father of Charlie, Jim Abrahams, was a Hollywood movie writer who directed and produced a movie about a little boy with epilepsy based on his son's story, called First Do No Harm, starring Meryl Streep. Meryl Streep received an Emmy and a Golden Globe nomination for this movie. You can watch it on Tubi. The success of this movie brought people to Beth, looking to do the ketogenic diet. It was an effective piece of media that brought awareness to the Ketogenic Diet.

Beth has also been involved in different studies about the effect of the ketogenic diet on different diseases such as epilepsy, PCOS, psychiatric disorders, etc. She coached patients through the diet and tracked symptoms before, during, and after the therapy. People often try out the diet because traditional medication isn't helping with the maintenance of their illness. The ketogenic diet is an alternative therapy to medicine with medical evidence that proves it can help improve health.

Beth has trained over 300 medical teams on how to use the ketogenic diet across the world. Since the COVID-19 pandemic, she has provided training online in virtual classes on how to prescribe and manage patients with the ketogenic diet therapy.

The Ketogenic diet is a nutritional therapy where the macronutrients, fat, protein, and carbohydrate, are modified. The fat is the main source of calories. Protein is provided to meet needs, and carbohydrate is the most restrictive of those three. And so you can personalize those macronutrients for who you're working with.

For example, if she is working with a child, she's going to make sure that they have enough protein for their rapid growth needs. For an adult over 40, she's gonna make sure that they have enough protein because they might not be metabolizing or using protein sufficiently because of their aging process. She can modify the fat to stimulate a certain degree of ketones, and that's very personal to the patient.

Beth's favorite part of her job is that she has the freedom to pick and choose what projects she can work on. She felt very stagnated in a hospital because she couldn't do those things. She had to use their materials, and you had to follow their systems and do a lot of recording. She felt like that was very important for her to understand a lot about healthcare. It gave her the incentive to go out on her own and take what she learned there and build on it more creatively.

Beth is grateful for her education from University of Wisconsin-Madison. She describes meeting other dieticians that came from smaller schools. Beth feel like she got a much wider breadth of experience because Madison's program was very research based and she really got to appreciate and really understand what happens in research and nutrition and meet some of the researchers.
They had to visit the researchers for some of their projects for school.

Today, she is now involved in research as a nutrition therapist applying her clinical experience, plugging it into a research design and, and really incorporating the personalization she learned from her work as a hospital dietician and her internships through UW-Madison.

"I feel like I really had a high quality training program and in Madison and, and I will never forget that," said Beth.

Beth encourages any aspiring nutritionists or dieticians to seek out experts and have coffee with them. She didn't do as much of that as she wanted, and states the importance of the many resources available for students.

"Ask 'em if you can come and interview them, just even for yourself, if not for a paper that you're writing.Because a lot of them are so willing. I mean they're there because they love the academic community. They're there for the students Ask some of your professors to introduce you to people you know that are doing research in an area that you're interested in. I wish I had done more of that looking back."

Beth also has advice for post-graduate students about entering the job market. She states to not be afraid to start off with an entry level position to learn the ropes of a hospital. Most entry-level jobs for registered dieticians are in hospitals and schools.

She claims that even if you don't have an interest in working at a hospital, it's helpful to learn and understand the healthcare system. Working in hospitals helped Beth understand chronic illnesses and how they can be prevented.

Beth has big plans in the future to write a book. People assume she is going to write a book about the ketogenic diet therapy, but that's not the case for her.

"I really thought about this hard and I just thought, well people are just afraid of eating fat. Especially young women. And I've worked with women with eating disorders who are eating very high carb diets. if I can convince them, we can get them to eat a little bit of fat, which their brain really needs, this can help turn things around for them," said Beth when asked about her book.

We are so proud of Beth and all of our nutritional sciences alumni and can't wait to read her book when it comes out!

Dietetics and Nutrition Club Update

Written by DNC President Dylan O'Brien

Fall Semester 2025

Mentorship Mixer

Passing the Plate

Wisconsin Athletics Performance Dietitian Speaker

Football Performance Dietitian Speaker

Old Executive Board

The Dietetics and Nutrition Club had a meaningful and energizing fall semester filled with professional development, community-building, and opportunities for members to explore nutrition in a variety of settings.

1

We kicked off the semester with a combined Mentorship Mixer + Passing the Plate event. Upperclassmen and underclassmen connected in small groups, shared advice about navigating the major, and exchanged stories about their favorite foods, cultural traditions, and experiences in nutrition. This event created a welcoming space for members to get to know one another while building supportive relationships that will continue throughout the
year.

2

Our first guest speaker was Gracie DeZwarte, MS, RD, Performance Dietitian for Wisconsin Athletics. She spoke about her role fueling student-athletes, the science behind high-performance nutrition, and her journey through the dietetics field. Members gained a deeper understanding of the demands and rewards of working in collegiate sports nutrition.

3

Later in the semester, we hosted Pressley Howe, Football Performance Dietitian, who shared her experience working directly with the Wisconsin Football team. She discussed the challenges of fueling high-level athletes, the importance of communication and trust, and the fast-paced, hands-on nature of sports nutrition.

4

We closed out the semester with our Old Exec Panel, where former DNC leaders returned to share insight into their graduate programs, dietetic internships, and early career experiences. Their encouragement and honest advice helped students better understand what lies ahead after UW–Madison.

Nutrition and Metabolism Graduate Program

News & Events Fall 2025

Kevin Shih presents research at the 2025 International Society for Precision Health conference

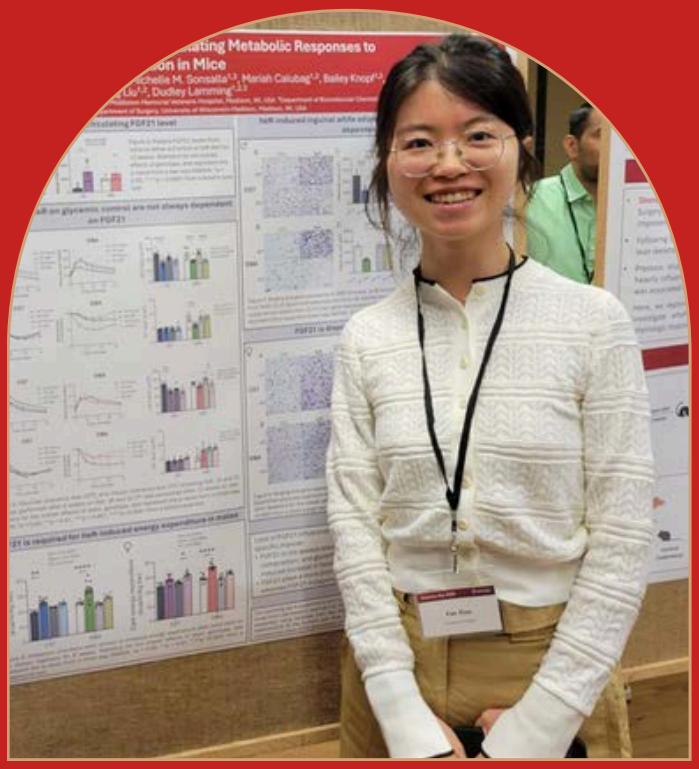
N&M grad student Kevin Shih of the Bolling lab was invited to present his research – choline bioavailability and metabolism from a new dairy ingredient (WPPC) in post-menopausal women – at the 2025 International Society for Precision Health conference in Taipei!

MANTP alum Lauren Lucas awarded F32 fellowship

The NIH-funded Metabolism and Nutrition T32 Training Program (MANTP) funds graduate students in N&M and other grad programs, as well as postoctoral trainees. Postdoctoral trainee Lauren Lucas was awarded an F32 fellowship from the National Health Institute for her project, "Impact of environmental factors on bacterial bile acid transforming activity" Congratulations, Lauren!

Nutrition and Metabolism Graduate Program

News & Events Fall 2025



N&M students present at 2025 Diabetes Research Day

Congrats to N&M PhD student Hoang Bui who presented at this year's Diabetes Research Day, along with Fan Xiao and Nicolas Pintozzi who presented posters! Hoang's talk was entitled, "White and Brown Adipose Tissue Share a Common Fibro-Adipogenic Progenitor Population." Fan presented her poster, "Sex- and Strain-Specific Roles of FGF21 in Modulating Metabolic Responses to Isoleucine Restriction in Mice." Nicolas's poster was entitled, "Impact of Metabolic Stress on Beta Cell Proliferation in Down Syndrome."

Kevin Shih awarded AOAC INTERNATIONAL/Herbalife Scholarship

N&M grad student Kevin Shih was awarded a 2025 AOAC INTERNATIONAL/Herbalife Scholarship to attend the AOAC Annual Meeting in San Diego! This competitive worldwide scholarship is awarded to two students per year and supports researchers advancing analytical or molecular testing with emphasis in botanicals, macro- or micro-nutrients, or contaminants. At the AOAC Annual Meeting, Kevin gave a talk to international scientists and FDA officers entitled, "Reimaging a Cheese Byproduct: A Novel Nutrition Solution for Our Healthier Future." He also presented a poster entitled "Assessing Choline Bioavailability and Metabolism for a New Dairy Ingredient (WPPC) in Post-Menopausal Women: A Randomized Control Trial (RCT)"

Nutrition and Metabolism Graduate Program

News & Events Fall 2025

Juyeong Cho awarded Korean Honor Scholarship

N&M PhD student Juyeong Cho was awarded the highly competitive Korean Honor Scholarship! This is Juyeong's second recognition this summer after winning the Graduate Women in Science's 2025-26 Ruth Dickie Research Scholarship. Congrats, Juyeong! Juyeong studies methotrexate (MTX), which is a common drug used to treat cancer and inflammation, but often causes harmful side effects in the gut.

MANTP alum Reji Babygirija awarded UW Distinguished Research Fellowship

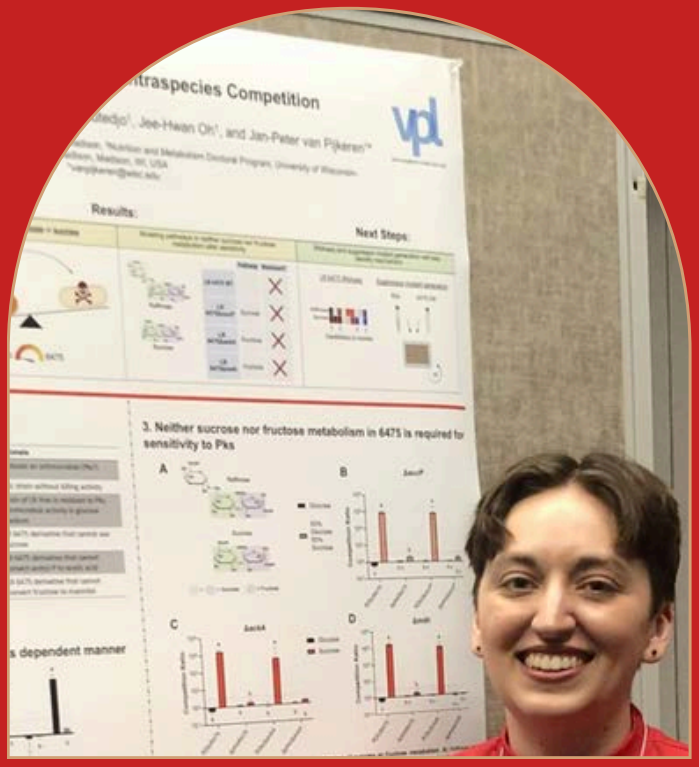
T32 Metabolism and Nutrition Training Program (MANTP) alum Dr. Reji Babygirija was awarded a UW Distinguished Research Fellowship for her postdoctoral work related to the RISE-THRIVE initiative.

The intent of the UW DRF Program is to support exceptional emerging scholars from around the world in collaborative research that takes place at UW–Madison and spans two distinct units (schools, colleges, centers), and that synergizes distinct disciplinary approaches. The fellowships will guide new research efforts to answer important and impactful challenges facing society.

Dr. Babygirja recently completed her PhD under the mentorship of N&M and MANTP faculty trainer Dr. Dudley Lamming, studying the impact of dietary interventions in slowing or preventing Alzheimer's disease progression using pre-clinical mouse models. She is now a postdoc postdoc in the WiSLiM Lab with N&M and MANTP trainer Dr. David Harris and in collaboration with Dr. Sam Gellman.

Nutrition and Metabolism Graduate Program

News & Events Fall 2025



N&M students present at 2025 LABBSA Conference

N&M grad students Mark Heggen and Morgan Smith of the van Pijkeren lab presented their research at the 2025 Lactic Acid Bacteria Biology, Symbioses and Applications conference. Mark presented a poster entitled, "(p)ppGpp-mediated Resistance to an Antimicrobial Secondary Metabolite Promotes Gut Fitness." Morgan gave a talk entitled, "Dietary Carbohydrates Alter Antimicrobial Sensitivity."

Crystal Qing receives John Brandt Memorial Scholarship for research on WPPC

Congrats to N&M PhD student Crystal Qing of the Leone lab, who was awarded the John Brandt Memorial Scholarship for her research investing the nutritional value and health benefits of Whey Protein Phospholipids Concentrate (WPPC)!

Nutrition and Metabolism Graduate Program

News & Events Fall 2025

Dr. Wei Wei joins N&M faculty trainer roster

The Nutrition and Metabolism Graduate Program (N&M) is happy to welcome Dr. Wei Wei as our newest faculty trainer. Dr. Wei will be starting as an Assistant Professor in the Department of Biochemistry in Fall 2025. Dr. Wei's research studies the biochemical pathways that regulate nutrient metabolism in mammals. Welcome, Dr. Wei!

Carolyn Shult awarded Big Ten scholarship

Carolyn Shult, N&M PhD student and UW-Madison Cross Country runner, was named a 2025 Big Ten Postgraduate Scholar! This scholarship recognizes two graduate student athletes from each Big Ten institution who maintain academic excellence and are role models for their team. Congrats, Carolyn!

Nutrition and Metabolism Graduate Program

News & Events Fall 2025

N&M trainers named Wisconsin Nathan Shock Center co-directors

University of Wisconsin–Madison has been selected to house a prestigious Nathan Shock Center of Excellence in the Basic Biology of Aging, supported by the National Institute on Aging (NIH). Nutrition and Metabolism faculty trainers Drs. Roz Anderson, John Denu, and Dudley Lamming have been named co-directors of the Center, which will focus on the metabolism of aging – a rapidly growing field with significant implications for understanding health span and longevity. The Center will have four specialized core areas: a Research Development Core, an Energetics of Longevity Core, a Discovery & Integration Core, and a Transplant & Application Core.

Crystal Qing cookbook collaboration now available

N&M grad student Crystal Qing collaborated on the newly released cookbook, Lab Culture, now available on Amazon! It contains recipes and biographies from more than 120 scientists around the world. The book was compiled and designed by Ahna Skop, professor of genetics; Diana Chu, a professor at San Francisco State University; and Hareem Rauf, a recent UW–Madison graduate who majored in economics and data science.

Addison Konlan serves as Global Nutrition Council student representative

University of Wisconsin–Madison has been selected to house a prestigious Nathan Shock Center of Excellence in the Basic Biology of Aging, supported by the National Institute on Aging (NIH). Nutrition and Metabolism faculty trainers Drs. Roz Anderson, John Denu, and Dudley Lamming have been named co-directors of the Center, which will focus on the metabolism of aging – a rapidly growing field with significant implications for understanding health span and longevity. The Center will have four specialized core areas: a Research Development Core, an Energetics of Longevity Core, a Discovery & Integration Core, and a Transplant & Application Core.

MANTP trainees win oral presentation awards

Two Metabolism and Nutrition Training Program (MANTP) trainees, postdoctoral trainee Dr. Nate Willis and predoctoral trainee Beth Poad, received oral presentation awards at the 2025 Madison Scholars Symposium! Congratulations Nate and Beth!

Nate Willis presentation: Cyclic Parenteral Nutrition Reduces Peroxisomal Lipid Oxidation Pathway Upregulation Compared to Continuous Infusion

Elizabeth Poad presentation: Cobalamin metabolism in adipocyte differentiation: Investigating Mmadhc as a genetic modifier of Pparg

Nutrition Nuggets Dec '25/Jan '26

Flavorful Celebrations & a Nourishing Start to the New Year

The holiday season brings joy, connection, and a table full of comfort foods. Taste remains one of the most influential drivers of our food choices, and food traditions are a meaningful source of pleasure and togetherness. Nutrition does not need to come at the expense of enjoyment. With a few intentional swaps and flavor-forward techniques, you can elevate holiday favorites and set the stage for a nourishing start to the new year.

Elevate Flavor, Lighten Ingredients

Infuse depth with citrus, herbs, and warming spices. For creamy dishes, try swapping half the cream or butter for Greek yogurt, pureed cannellini beans, or blended roasted squash. These modifications maintain richness while reducing fat and increasing beneficial nutrients.

Brighten Your Plate with Plants

Use vegetables and legumes (i.e., beans, peas) as satisfying bases. A roasted cauliflower platter with tahini and pomegranate seeds offers a vibrant centerpiece. Consider a lentil-mushroom side dish or stuffing to add hearty texture and fiber while maintaining familiar seasonal flavor notes.

Refresh Traditional Sides

Trade refined (white) grains for whole grains where possible and culturally appropriate. A wild rice pilaf with dried cranberries, toasted pecans, and orange zest complements classic proteins and provides lasting fullness. Mashed sweet potatoes seasoned with nutmeg and cinnamon offer natural sweetness without added sugars. If you prefer, you can still add some sugar, but this method allows you to reduce the amount without sacrificing flavor.

Set a Sustainable Tone for January

Carry these strategies forward by planning balanced meals and embracing culinary creativity. Small, steady, consistent changes cultivate meaningful long-term benefits. Health, enjoyment, and tradition can coexist beautifully at the table this season and beyond.

Stavroula N. Antonopoulos is a registered dietitian nutritionist with the UW-Madison Department of Nutritional Sciences

Fall 2025 Undergraduate Highlight

Dylan O'Brien

Dylan O'Brien is a senior majoring in Nutritional Science & Dietetics with certificates in Entrepreneurship and Life Science Communication. She is also on the Pre-Physician Assistant track, combining her nutrition background with her passion for patient-centered care. Outside of academics, Dylan enjoys staying active through running and long walks, spending time with family and friends, and trying new experiences, whether that's a workout, a recipe, or a local adventure.

Why did you join the DNC?

I joined the DNC because I wanted to engage with a community that aligned with my interests while building a strong foundation for my future. The club allowed me to explore nutrition beyond the classroom, connect with people who shared similar goals, and gain experiences that will be incredibly valuable as I move toward a career in healthcare.

Why Wisconsin?

I'm originally from Connecticut, and coming to UW–Madison was a huge step outside my comfort zone. I wanted to leave my hometown, challenge myself, and experience something completely different from what I was used to. Wisconsin offered the perfect opportunity to grow independently while still finding a strong sense of community. The combination of academic excellence, a welcoming campus, and the chance to build a new life in a new place made UW
feel like the right choice, and it's become one of the best decisions I've ever made.

Post-grad life?

After graduation, I plan to continue on my path toward becoming a Physician Assistant, using my nutrition background to support patient wellness in a holistic way. I'm excited to apply everything I've learned during my time at UW to the clinical experiences ahead.

What's it like?

One of the best parts of being involved in the DNC has been the sense of community it's given me. Through the club, I've connected with driven classmates, met alumni who are now in internships and grad programs across the country, and built relationships with faculty who have supported me throughout my time at UW. Hearing the paths others have taken has helped me picture the type of healthcare provider I want to become.

As a senior, I love getting to talk with undergraduates – whether it's about navigating the major, exploring career options, or just figuring out how to balance everything. It's meaningful to be someone they can come to with questions, especially because I remember being in their shoes not long ago.

Want to be part of the next undergraduate highlight?

Email: student-staff@nutrisci.wisc.edu

UW-MADISON DNC DIETETICS AND NUTRITION CLUB EST. 1968

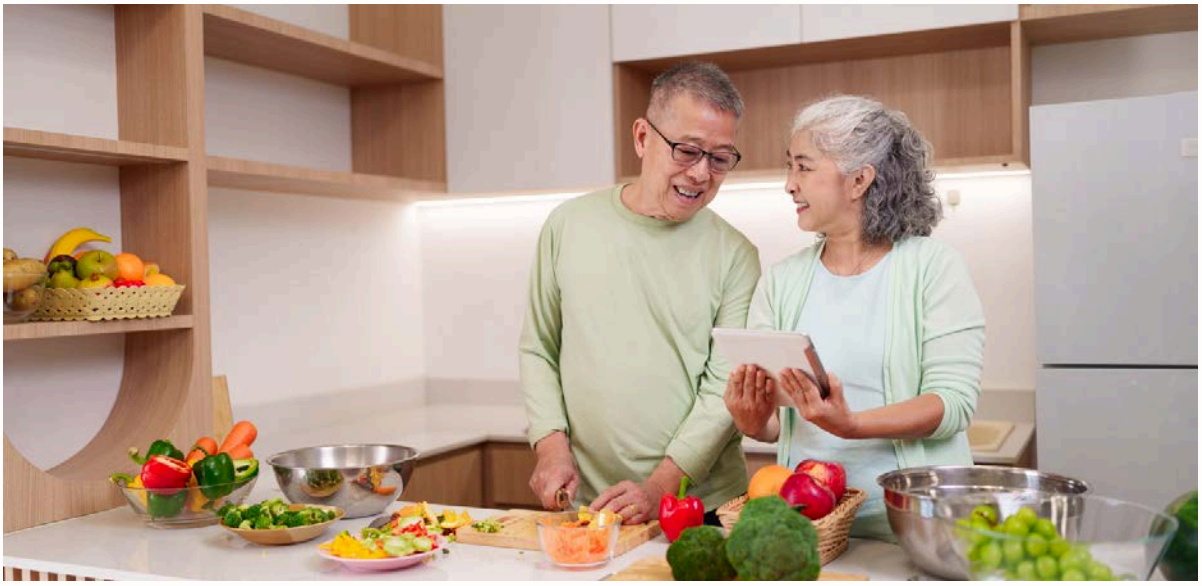
Being president of the DNC keeps me busy, but the impact makes every bit of effort worth it. In my role, I:

- Organize our club events, workshops, and volunteer opportunities
- Lead executive board meetings and help guide the direction of the group
- Work closely with faculty and dietitians who reach out for student involvement
- Make sure members hear about professional opportunities, guest speakers, and ways to get engaged
- Support board members by delegating tasks based on their strengths and interests

It's a leadership experience that has pushed me to grow, and one I'll carry with me as I move toward a future in patient care.

WELLNESS TALKS

Getting Older – Should We Care More About Our Nutrition?



As we age, we may think some changes in our health are inevitable. However, good nutrition and remaining active can help us keep strong enough to keep doing all the things we enjoy.

The November Wellness Talk at the Monona Terrace was: *Getting Older- Should We Care More About Our Nutrition?* This was presented by Beth Olson. The presentation can be viewed online as well as other resources and research Olson provided during the presentation.

View The Webinar here!

Nutrition & Aging Resources here!

About Beth Olson

Beth Olson, Associate Professor, College of Agricultural & Life Sciences, Nutritional Sciences. Dr. Olson has worked in community-based nutrition research and programs for 25 years, starting with positions at The Kellogg Company in research & development and marketing. She now works at UW-Madison doing research and outreach to help individuals and families make the healthiest choices possible in nutrition and health.

Sanshray Vallecha

Winter 2025 Grad

Sanshray Vallecha discovers his passion for nutritional sciences

Sanshray Vallecha, who grew up in Pewaukee, Wisconsin, will be graduating this winter with a bachelor's in nutritional science and neurobiology. In this Q&A, he explains what inspired him to choose his majors, his volunteer work on campus, and the networking opportunities within CALS that impacted his college experience. Sanshray plans to attend medical school to become a surgeon.

Why did you choose your major? What was the most interesting or the coolest thing you learned?

I chose my major in nutritional sciences because of my interest in healthier eating during my weight-loss journey. Through this journey, I began to learn what it means to eat healthy, and I wanted to continue learning about diet and food in general to deepen my understanding. One of the most incredible things that I have learned is how integral nutrition is in preventing or decreasing the risk for many diseases, especially some of the most prevalent in our country: obesity, diabetes, and cardiovascular disease, among others.

I chose my other major, neurobiology, because of my interest in the brain, especially given how much we still have to learn about it. One of my favorite comparisons is that the brain is like the ocean: we know so much yet so little about each, yet they both are integral to our daily lives.

What student organizations, groups, and other activities were you involved in?

I am involved in a few student organizations on campus: Health Entrepreneurs and Leaders and Badger Volunteers. I have also been involved in Alpha Epsilon Delta, the Food Justice Collective, and GUTS in previous semesters.

As for volunteering, I volunteer with New Friends and Bridging Wisconsin, and I am a peer learning volunteer for Anat&phys 335. I have also been involved in research in the NeuroLAND lab since my freshman year, when I joined the lab through the Undergraduate Research Scholars Program.

What are your future academic and/or career plans, short-term and long-term?

My postgraduate plans are to attend medical school and become a physician. As of now, my goal is to perform some procedures, whether as a surgeon, gastroenterologist, or interventional radiologist. However, I am still open to many different specialties.

What were the most valuable and/or meaningful experiences you had in CALS?

My most meaningful experiences in CALS came from the networking opportunities provided. Whether it be job fairs or talking with advisors, CALS always allowed us as students to thrive while we were in school, preparing us for our plans after graduation.

What I liked most about these experiences is the personability that these opportunities created, with everyone being genuinely interested in what I was doing and always willing and excited to help.

When you think about your time here as a student, what are you proud of?

As a student at UW–Madison, my proudest moments have come through my volunteer work. Through Bridging Wisconsin, a program that promotes higher education among middle and high school students from underprivileged communities in Wisconsin, we have provided opportunities for these students to pursue their dreams of attending college.

Through New Friends, where we work with mentors (people with dementia or a related disease), I have learned so much by interacting with them and through the workshops held every month. It always brings a smile to my face when mentors and their caregivers tell us how much they look forward to our monthly meetings!

Lastly, through Badger Volunteers, I have been able to cook dinner for students at the Lussier Community Education Center, an after-school center in the Madison area. Being able to cook, something I love doing, while putting healthy meals on these students' plates and interacting with the students has been such a rewarding experience to help out the Madison community!

Do you have any advice you'd like to share with CALS students?

For other CALS students and undergraduate students in general, my advice would be to have a lot of fun.

Even though it can take a little bit to get acclimated to classes, the undergraduate college experience can be built in the way YOU want it. Whether you are someone who likes to get super involved in their clubs or go on hikes to Picnic Point with friends, this university offers so many experiences for you to take advantage of.

I focused on finding a good balance between student life and academics, and I encourage everyone to do the same. School will continue, but most of my favorite college experiences have come from time with friends. A lot of people always say their college days were among their favorite times, and I can understand why. Make the most of YOUR undergraduate experience and enjoy every step of the way!

What do you like most about being a CALS student?

The thing I like most about being a CALS student is the family that I have built through my nutritional sciences major. In classes, I have seen familiar faces for most of my time as a nutritional sciences student, and have grown to become great friends with some of my peers. My advisor, Mona Mogahed, has also been super helpful in guiding me toward my next steps. Whether it is providing recommendations for classes, always looking out for scholarship opportunities, or just being a delightful person to talk to, I have learned a lot. I am grateful for her help and advice over my four years. It feels like I have really built a community and family within CALS!

If you had to eat one Babcock ice cream flavor for the rest of your life, what would it be and why?

If I could only eat one Babcock ice cream flavor for the rest of my life, it would be Mnookie Dough. There is something classic about caramel and cookie dough that really makes me feel at home. If I ever get too overwhelmed by the choices at Babcock (which happens a lot), this is my go-to for sure!

What's your favorite thing about the city of Madison?

My favorite thing about the city of Madison is the diversity the city offers. Of course, there are two lakes surrounding the city, providing plenty of year-round activities and giving us a great time on the Memorial Union terrace.

There is also a fantastic farmer's market in Madison that I wish I had explored earlier; make sure to try everything! We have State Street, Camp Randall/Kohl Center, and a beautiful campus with a wonderful mix of modern and classic buildings.

I could go on and on with how amazing the city of Madison is, but its diversity in experiences makes me want to stay.

Congratulations Sanshray and Good Luck!

MATTHEW VANDER HEIDEN

Massachusetts Institute of Technology

Biography

Matthew Vander Heiden is an institute member of the Broad, director of the Koch Institute for Integrative Cancer Research, the Lester Wolfe (1911) Chair in Molecular Biology, and a professor in the Department of Biology at the Massachusetts Institute of Technology. He is also a practicing medical oncologist and instructor of medicine at the Dana-Farber Cancer Institute and Harvard Medical School.

Fall 2025 Seminar Speaker

The nutrition and metabolism graduate students hosted Matthew Vander Heiden from the Koch Institute for Integrative Cancer Research at MIT for a special student-invited seminar in the Department of Nutritional Sciences' Fall 2025 Seminar Series. His talk was titled "Influence of Nutrients on Cancer Progression" and was held at the DeLuca Forum in the Discovery Building from 3:00 – 4:00 p.m. on Wednesday, September 24.

Vander Heiden's work explores metabolism and cancer biology, with a focus on how diet and whole-body metabolism affect cancer and other disease phenotypes. Recently, his group published a study showing that the metabolism of cancer cells is influenced by the tissue of origin, and this dictates where the cancer cells can metastasize.

ALUMNI AND FRIENDS GIVING

The Nutritional Sciences Department appreciates any and all funding it receives. If you are interested in helping the department and would like to donate to a particular cause the following are a few specific funds we have decided to highlight:

A.E. Harper Graduate Program Fund

Fund 132041328

Established to support the Nutrition & Metabolism Graduate Program. Alfred E. Harper led the founding of the Department of Nutritional Sciences and served as its first Chair from 1968-1982. A native of Lethbridge, Alberta, Harper arrived on campus in 1949. He began research on amino acids, the building Blocks of proteins, in the lab of biochemist Conrad Elvehjem. Harper served as a member of the National Academy of Sciences Food and Nutrition Board, the 1969 White House Conference on Nutrition, the United Nations Food and Agriculture Organization/World Health Organization Expert Committee on Protein and Energy, the U.S. Department of Agriculture/National Institutes of Health Committee on Dietary Allowances, and the USDA Human Nutrition Board of Scientific Counselors. During his career, Harper guided 30 students to master's degrees and another 44 to doctorates in biochemistry or nutrition.

Karen Spector Scholarship in Dietetics Fund

Fund 132045322

Established by Dianne and Jerome Spector on February 19, 1988 in memory of their daughter, Karen Spector. Created "to encourage and assist students in the Department who have enthusiasm, creativity and imagination similar to their daughter Karen," the recipient shall be a person who gives that extra measure of hard work that makes an impact on others and sets himself/herself apart from the crowd. The individual should be a person who makes the world a better place because they do a bit more and reflect the attitude that one person could make a difference.

Lida A. Jamison Endowment Fund

Fund 32041929

Established in 1994 with a gift from her estate, the Lida A. Jamison Nutritional Sciences Endowment Fund supports projects within the department. This fund is used to provide faculty startup funds for new professors. Dr. Brian Parks was able to support the purchase of a state-of-the-art animal body composition analyzer, a quantitative PCR machine, and other biomedical laboratory equipment necessary to begin research. Dr. Adam Kuchnia was also able to utilize these funds to start his lab off in the right direction by purchasing cutting-edge imaging equipment needed to conduct his research in body composition and muscle metabolism.

Hellen M. Linkswiler Graduate Student Award Fund

Fund 3204282

The friends and colleagues of the late Dr. Hellen M. Linkswiler and the Department of Nutritional Sciences, College of Agricultural and Life Sciences set up this fund. Dr. Linkswiler received her MS in Foods and Nutrition and her Ph.D. in Nutrition and Physiology from Madison, and was a Professor of Nutritional Sciences at UW-Madison from 1960 until her retirement in 1981. This fund supports an annual scholarship to a student enrolled in the Master of Science in Clinical Nutrition.

Elmer Martin Billings and Jean Hood Billings Professorship in Nutrition Fund

Fund 132042840

Supports the needs of the professorship, including but not limited to books, research assistants, travel and other enhancements of teaching and scholarly activity.

Dorothy J. Pringle Nutritional Sciences Fund

Fund 32040173

Established on December 31, 1986 by Dr. Julie P. Thurlow to honor Dr. Dorothy J. Pringle. This fund provides support for undergraduates in dietetics and nontenure track faculty for travel and other educational experience, and expenses. Often, instructors have benefited from the Pringle Fund by attending meetings and purchasing technology they otherwise would not be able to. Dr. Pringle was an Emeritus Nutritional Sciences faculty member, the first director of the Coordinated Undergraduate Program, and was the donor's undergraduate advisor. Dr. Pringle was at the UW from 1949 until her retirement in 1985 and continued to be involved with the department until her passing at 97 years young in 2016.

Nutritional Sciences General Fund

Fund 32040034

Aids the Department of Nutritional Sciences in its teaching, research and public service (outreach) roles. supporting seminar and speaking engagements, faculty searches, and travel needs to various scientific conferences around the globe. This fund is essential to the operation of the department and aids in keeping the Department of Nutritional Sciences amongst the elite nutrition departments in the country. Established in 1985 with gifts from the estates of Dorothy L. Miller and Irene DeNoyer, the Nutritional Sciences Department Funds seeks to support the greatest needs of the Department of Nutritional Sciences.

Nutritional Sciences Bingo

5 in a row wins **5 in a row wins**

Went to a home Badgers game 	Read a published research article	Got a fall drink from Peets 	Participated in a N.S. Study	Visited the Saturday Farmers Market 
Went to a DNC Meeting	Saw the Northern Lights 	Hiked to Picnic Point	Sat on the terrace 	Visited Earl's Place
Went Apple Picking 	Attended a Fall Seminar Series	Free Space  Free Space	Visited the Nutritional Sciences Department Office	Went to a pumpkin patch 
Did meal prepping	Walked on Lakeshore Path 	Visited a lab in the Nutritional Science building	Dressed up for Halloween 	Learned a new micronutrient fact
Got babcock ice cream 	Tried a new fall soup	Visited the Capitol 	Ate 3 colors of fruits/veggies in one meal	Watched the Thanksgiving Day Parade 

Department of Nutritional Sciences
University of Wisconsin-Madison
1415 Linden Drive
Madison, WI 53706-1571

Nonprofit Org.
U.S. Postage
PAID
Permit No.
658
Madison, WI

Nutritional Sciences Digest
Dept. of Nutritional Sciences
1415 Linden Drive
Madison, WI 53706-1571
phone: 608.262.2727
fax: 608.262.5860
ns-office@nutrisci.wisc.edu

We welcome any questions or comments, please direct them to:
editor Madeline Wooten
student-staff@nutrisci.wisc.edu

Please consider making a tax-deductible gift to the University of Wisconsin Foundation put toward the Department of Nutritional Sciences.
To make a gift online, visit www.supportuw.org/giveto/nutrisci, under "Make a Gift" type in the Department of Nutritional Sciences. Or, make a check payable to the University of Wisconsin Foundation and mail it with this completed form to: University of Wisconsin Foundation; U.S. Bank Lockbox, Box 78807, Milwaukee, WI 53278-0807.

I/we wish to support ongoing programs for educational excellence at the University of Wisconsin-Madison with my/our gift of $ _____
A matching gift program can double or even triple your gift.
If you wish to have your gift matched by your employer, please X one of the [boxes]:
[ ] Printed form enclosed [ ] I will initiate this match on my company's website
Company's name _____
I/we wish to designate my/our gift to: The Department of Nutritional Sciences
Name _____
Address _____
City _____ State _____ Zip _____
Phone: [ ] Home (Landline) [ ]Work [ ]Cell _____
E-mail _____
Job Title _____
Company Name _____
Company Address _____
City _____ State _____ Zip _____
[ ] Check here if this is a new address
Credit Card Information
Please charge $ _____ to my credit card.
[ ] MasterCard [ ] Visa [ ] American Express [ ] Discover
Card Number _____ Expiration Date _____
Cardholder name (please print) _____
Cardholder signature _____

uwmadisonnutrisci

uwnutrisci

UW-Madison Department of Nutritional Sciences

uwmadisonnutrisci