



HNFE NEWS

Virginia Tech Department of Human Nutrition, Foods, and Exercise

FROM WALLACE HALL

Dear Virginia Tech HNFE Alumni and Friends:

The Fall 2023 semester has brought a wave of excitement to the Department of Human Nutrition, Foods, and Exercise (HNFE) at Virginia Tech.

Our summer was nothing short of amazing! From our presence at the American College of Sports Medicine (ACSM) Conference, showcasing our commitment to industry advancements, to the standout moment of the Translational Obesity Undergraduate Research (TOUR) Scholars' visit to the National Institutes of Health, highlighting our dedication to pioneering undergraduate research, we are steadfast in our pursuit of impactful health and wellness solutions. We also have two brand new majors for undergraduates! It is an evolution we are thrilled to share with you! To delve deeper into these majors, check out the last page of our newsletter.

As the Fall Class of 2023 graduates, we celebrate your triumphant conclusion of this academic journey. Your dedication and resilience inspire our entire department. The installation of the Phi Epsilon Kappa Chapter is a pivotal step in nurturing and empowering aspiring scholars—both undergraduate and graduate—signifying our commitment to fostering academic excellence and leadership. And let's not forget the remarkable achievements of our graduate students; from passing qualifying exams to successfully defending thesis/dissertation defenses, to their experiential learning in the Master of Science in Nutrition and Dietetics (MSND) program, their commitment to excellence shines brightly. We are immensely proud and wish them continued success.

We have expanded the HNFE family with new additions to our faculty and staff, bringing in fresh perspectives and expertise. Join us in welcoming Dr. Molly Parker, Dr. Rodney Gaines, Kim Dowdy, Dr. Charles Najit, and Dr. Sumita Mishra. Their arrival infuses new energy and innovation into our community. The myriad achievements of our faculty and staff, including award-winning accolades, stand as a testament to their unwavering dedication and expertise.

If your travels bring you to Blacksburg, do drop by our main office in Wallace Hall. We are always eager to welcome visitors and hear about the amazing endeavors of our alumni.

Wishing you a fantastic holiday season ahead! Go Hokies!

Sincerely,

Stella L. Volpe, PhD, '87, '91

Professor and Head

Department of Human Nutrition, Foods, and Exercise

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Foods, and Exercise
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COLLEGE OF AGRICULTURE AND LIFE SCIENCES
**HUMAN NUTRITION,
FOODS, AND EXERCISE**
VIRGINIA TECH

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY
An equal opportunity, affirmative action institution

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STAY CONNECTED

To follow the latest achievements of our students, faculty, and staff and view recent departmental news, visit our website.

WWW.HNFE.VT.EDU

Follow us on social media for daily content, which includes announcements, event information, student features, departmental plans, and more!



[VTHNFE](#)



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Virginia Tech
Human Nutrition,
Foods, and Exercise

STUDENT NEWS

American College of Sports Medicine (ACSM) Conference

Our department was well-represented at the 2023 American College of Sports Medicine (ACSM) Conference from Wednesday, May 30 to Friday, June 2 in Denver, Colorado. Many of our undergraduate and graduate students and many of our faculty members presented their research during the conference. Check out some snapshots and highlights from the event on pages 2 to 4. To view more photos from the conference, we encourage you to visit our Facebook to browse through our ACSM Conference photo album (link on page 4).



STRENGTH IN UNITY

Before the starting line, diverse faces of HNFE - undergraduate and graduate students, esteemed faculty, and proud alumni - gather for a spirited pre-5K snapshot. Together, they champion health and wellness at the ACSM conference, embodying the vibrant spirit of our community in every stride.



BREAKING BREAD, FORGING BONDS

Past and present Hokies unite at the Josephine Rathbone & Barbara Drinkwater Breakfast during the ACSM conference. Amongst shared stories and nourishing conversations, this gathering encapsulates the enduring camaraderie within our vibrant HNFE family.



SCIENCE AND SUGAR

Robin Queen (at left), biomedical engineering professor, and Angela Anderson (at right), HNFE collegiate associate professor, and two HNFE undergraduate students, Nicole Forth (second from left) and Jordan Baer (second from right), enjoy donuts from Voodoo Donuts on National Donut Day.



JULIA BASSO

Julia Basso, HNFE assistant professor, presented a research poster titled "Exploring Flow State Through Cognitive Assessments and Electroencephalography Hyperscanning in Professional Dancers of Memphis Jookin'" on Wednesday, May 31 at the ACSM conference.



BRENDA DAVY ENETTE LARSON-MEYER

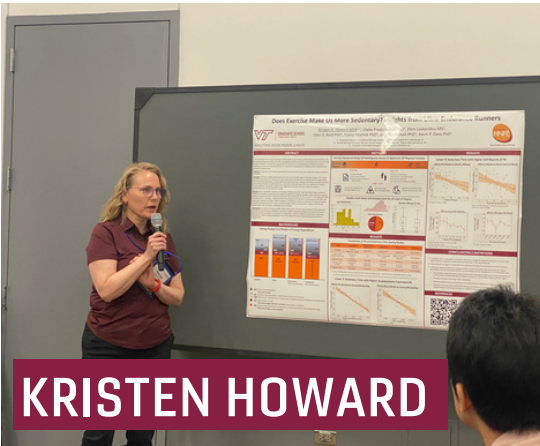
Brenda Davy (standing at podium at left), HNFE professor, presented on ultra-processed foods and implications for the athlete on Thursday, June 1 at the ACSM Conference. The session was chaired by Enette Larson-Meyer (seated at table at right), HNFE professor.



STELLA VOLPE

Stella Volpe, HNFE department head and professor, had two presentations prepared for the ACSM conference. On Tuesday, May 30, Volpe presented her talk on "Magnesium and Muscle Function" at the Gatorade Sports Science Institute (GSSI) pre-conference. On Wednesday, May 31, she also presented a talk on "Tools for Diet and Physical Activity Interventions to Improve Children's Health."

American College of Sports Medicine (ACSM) Conference



KRISTEN HOWARD

Kristen Howard, a translational biology, medicine, and health doctoral candidate mentored by Kevin Davy, HNFE professor, presented her poster on "Does Exercise Make Us More Sedentary? Insights from Ultra-Endurance Runners."



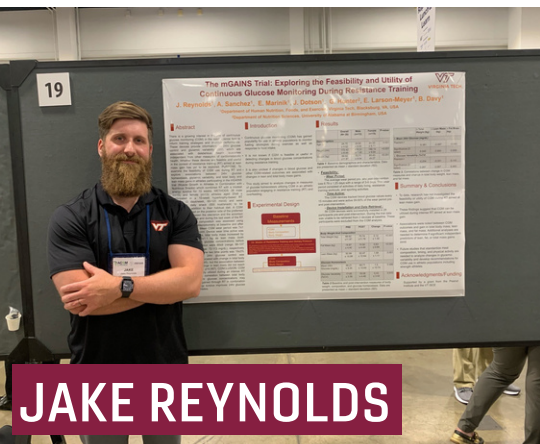
ALLISON SANCHEZ

Allison Sanchez, HNFE doctoral student mentored by Enette Larson-Meyer, HNFE professor, presented her poster on "Modest Caloric Surplus Combined with Resistance Training Leads to Healthy Weight Gain in Athletic Individuals."



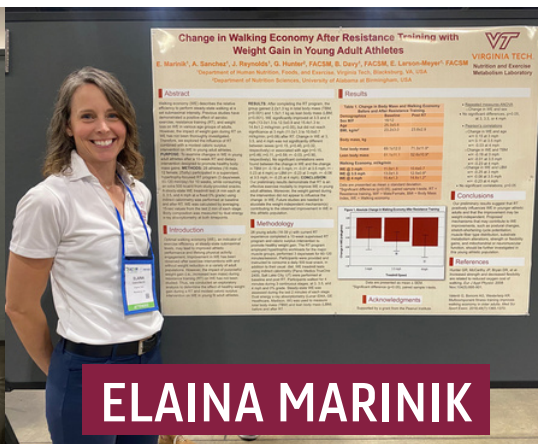
TRISHA STERRINGER

Trisha Sterringer, HNFE doctoral student mentored by Enette Larson-Meyer, HNFE professor, presented her poster on "Dietary Intake and Hydration Status of Male Collegiate Soccer Players Surrounding a Match."



JAKE REYNOLDS

Jake Reynolds, HNFE doctoral student mentored by Brenda Davy, HNFE professor, presented on "The mGAINS Trial: Exploring the Feasibility and Utility of Continuous Glucose Monitoring During Resistance Training."



ELAINA MARINIK

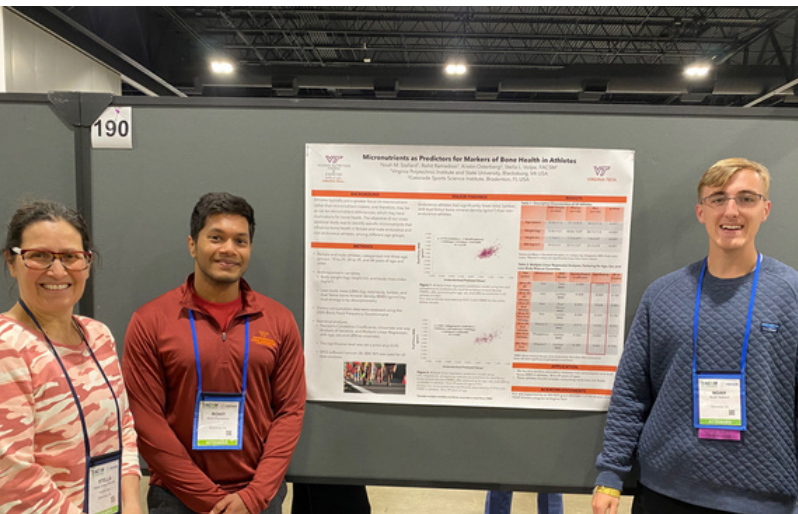
Elaina Marinik, HNFE clinical research coordinator, presented on "Change in Walking Economy After Resistance Training with Weight Gain in Young Adult Athletes."



NOOR TASNIM

Noor Tasnim, a translational biology, medicine, and health (TBMH) doctoral student mentored by Julia Basso, HNFE assistant professor, presented on "Dance on the Brain: Examining how dance enhances social skills through behavioral and neural synchrony."

American College of Sports Medicine (ACSM) Conference



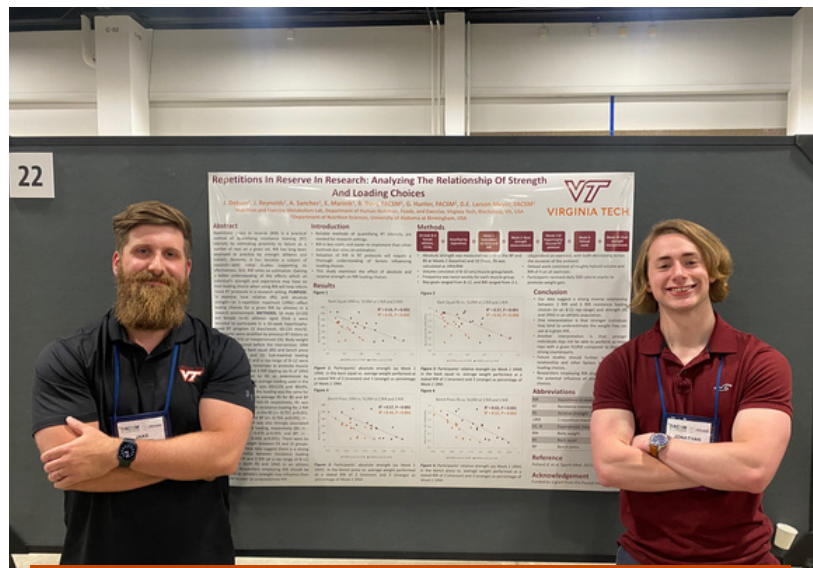
Noah Stallard '23 (at right) presented his poster on "Micronutrients as Predictors for Markers of Bone Health in Athletes." Stallard is photographed alongside his mentor, Stella Volpe (at left), HNFE department head and professor, and Rohit Ramadoss (second from left), HNFE doctoral student advised by Volpe. Ramadoss is a co-author of the research being presented on the poster.



Enette Larson-Meyer (third from left), HNFE professor, was one of ten speakers at the Professionals in Nutrition for Exercise and Sport (PINES) pre-symposium presentation "10 Myths in Sports Nutrition," with organizers Louise Burke and Melinda Manore. The PINES pre-symposium was a session opener on Tuesday, May 30.



Olalla Prado Nóvoa (at left), HNFE postdoctoral fellow mentored by Kevin Davy, HNFE professor, presented her poster on "Validation of classic and new predictive equations to estimate the RMR across different activity levels." Bill Herbert (at right), HNFE emeritus professor, stopped by to hear her presentation. Fun fact: Herbert was Davy's doctoral advisor.



Jonathan Dotson (at right), undergraduate researcher in Enette Larson-Meyer's lab, presented his poster on "Repetitions in Reserve in Research: Analyzing The Relationship of Strength and Loading Choices." Jake Reynolds (at left), HNFE doctoral student mentored by Brenda Davy, HNFE professor, assisted with the intervention for the research being presented by Dotson.

Click or tap the button below to view more photos from the 2023 American College of Sports Medicine (ACSM) Conference on our Facebook.

[2023 American College of Sports Medicine \(ACSM\) Conference Facebook Photo Album](#)

Virginia Tech Rescue Squad announces officers for 2023-24 academic year



New officers of the Virginia Tech Rescue Squad. Photo by Linda Hazelwood for Virginia Tech.

The student-run Virginia Tech Rescue Squad recently elected and appointed its new officers for the academic year. These dedicated individuals will lead a team of 44 members, all certified as emergency medical technicians and advanced emergency medical technicians by the Virginia Office of Emergency Medical Services and the National Registry of Emergency Medical Technicians.

In a swearing-in ceremony held in early April, the squad honored and recognized the newly elected leaders, highlighting their commitment to serving the university community with the highest level of emergency medical care available. Since its establishment in 1969, the Virginia Tech Rescue Squad has maintained an unwavering dedication to the safety and well-being of the campus community.

These individuals were carefully selected for their exceptional dedication, leadership qualities, and expertise in their respective roles. They will oversee the squad's operations, strategic planning, and training initiatives throughout the academic year, ensuring the squad's ability to provide the best possible emergency medical care to the Virginia Tech community.

Out of the nineteen newly elected and appointed officers, two of them are students in the Department of Human Nutrition, Foods, and Exercise. Amanda White, HNFE junior from Media, Pennsylvania is the new Membership Chair. White also holds a major in biological sciences. Milda Russom, HNFE junior from Lorton, Virginia is a new Member at Large. Russom is also a public health major. White and Russom, together as new members of the Rescue Squad, represent three colleges across campus: the College of Agriculture and Life Sciences, the College of Science, and the Virginia-Maryland College of Veterinary Medicine.

"Leading the Virginia Tech Rescue Squad is both an honor and a tremendous responsibility," said Jacob Wierer, chief of the Virginia Tech Rescue Squad. "I am committed to upholding our organization's legacy of providing the highest standard of emergency medical care to the campus community. Together with my fellow officers and dedicated squad members, we will work tirelessly to ensure the safety and well-being of every individual at Virginia Tech. I look forward to serving and making a positive impact on our community."

The Virginia Tech Rescue Squad's commitment to the campus community extends beyond immediate emergency response. Its members play a crucial role in delivering emergency medical services during major university and athletic events. They also provide continuous health and safety-related training, including programs like Stop the Bleed, for the university community.

[Click or tap here to read the full story.](#)

TOUR Scholars visit the National Institutes of Health

The Translational Obesity Undergraduate Research Scholars Program is a research-intensive summer experience that prepares students for graduate and medical education in translational obesity research.



TOUR Scholars with Chen Kong (at left), director of human energy and body weight regulation core, inside of a hospital room designed for patients with obesity at the National Institutes of Health's Metabolic Clinical Research Unit. Photo by Cameron Warren for Virginia Tech.

Virginia Tech students leapt into the future of translational obesity research during an exclusive visit to the National Institutes of Health (NIH) campus, as part of the Translational Obesity Undergraduate Research (TOUR) Scholars Program. The TOUR Scholars Program is a research-intensive summer experience that prepares students for graduate and medical education in translational obesity research, which is research intended for direct application to people. The program is led by Deborah Good and Samantha Harden, associate professors in the Department of Human Nutrition, Foods, and Exercise in the College of Agriculture and Life Sciences. This year, there were nine TOUR Scholars, eight undergraduate students from Virginia Tech and one undergraduate student from Radford University.

During their visit to the National Institutes of Health, the TOUR Scholars met with Marc Reitman, chief of the diabetes, endocrinology, and obesity branch; Amber Courville, staff scientist at the National Institute of Diabetes and Digestive and Kidney Diseases; and Diana Cummings, program director of the division of digestive diseases and nutrition, during a career panel. The scholars also had the opportunity to tour the NIH Metabolic Clinical Research Unit and Metabolic Chambers with Chen Kong, director of human energy and body weight regulation core, as their guide.

The TOUR Scholars program is funded by an NIH R25 Research Education Grant and is under the umbrella of the Center for Transformative Research on Health Behaviors. TOUR Scholars are matched with a faculty mentor working across the obesity translational spectrum and, over the course of 10 weeks, complete National Institute of Diabetes and Digestive and Kidney Diseases-related research projects.

Each scholar presented their research projects at the Office of Undergraduate Research Summer Symposium on Thursday, July 27 at the conclusion of the program. The conference was funded by the Fralin Life Sciences Institute, the Institute for Critical Technology and Applied Science, and a National Science Foundation grant.

Obesity is a common, serious, and costly disease. According to the Centers for Disease Control and Prevention, the estimated annual medical cost of obesity in the United States was nearly \$173 billion in 2019. Medical costs for adults who had obesity were \$1,861 higher than medical costs for people with healthy weight. Data from the 2017-18 National Health and Nutrition Examination Survey revealed that more than 2 in 5 adults and almost 1 in 5 children were considered obese. Obesity-related conditions include heart disease, stroke, Type 2 diabetes, and certain types of cancer. These are among the leading causes of preventable, premature death.

Click or tap the buttons below to see more photos from the TOUR Scholars NIH Trip or take a look at photos from the Research Summer Symposium on our Facebook.

[TOUR Scholars' Visit to NIH Facebook Photo Album](#)

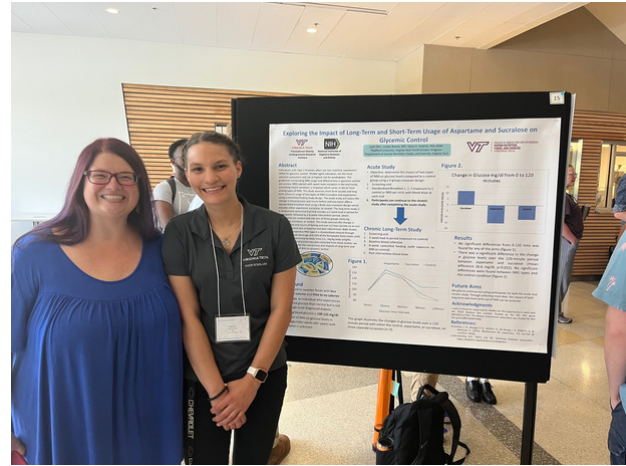
[Research Summer Symposium Facebook Photo Album](#)



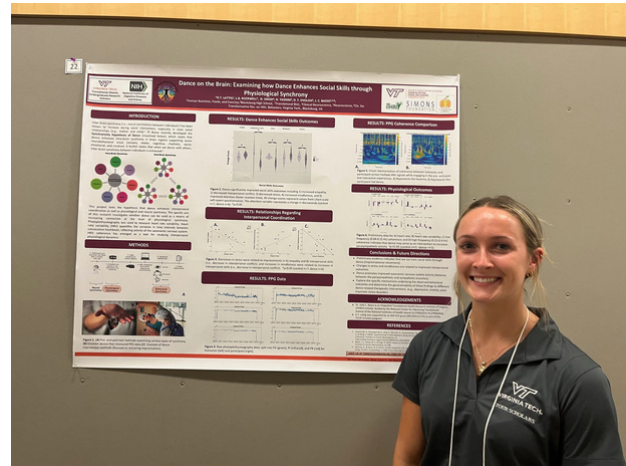
This year's TOUR Scholars with their program directors: (from left) Abhinav Krishnan, Timothy "Tim" Le, Keaton Band, Wenjing Yu, Tyler Parker-Rollins, Genet Mehari, Katherine Lattig, Deborah Good, Leah Ellis, Samantha Harden, and Kimuchu Kibue. Photo by Cameron Warren for Virginia Tech.

The TOUR Scholars represent a variety of disciplines at Virginia Tech and Radford University:

- Abhinav Krishnan, biochemistry junior, mentored by Siobhan Craige, HNFE assistant professor
- Keaton Band, HNFE senior, mentored by Alexandra DiFeliceantonio, HNFE assistant professor and assistant professor in the Fralin Biomedical Research Institute at VTC
- Leah Ellis, nutrition and dietetics junior at Radford University, mentored by Valisa Hedrick, HNFE associate professor
- Kimuchu Kibue, cognitive and behavioral neuroscience senior, mentored by Christopher Thompson, assistant professor in the School of Neuroscience
- Katherine Lattig, HNFE junior, mentored by Julia Basso, HNFE assistant professor
- Timothy "Tim" Le, biochemistry junior, mentored by Irving "Coy" Allen, associate professor of biomedical science and veterinary medicine in the Virginia-Maryland College of Veterinary Medicine
- Genet Mehari '23, a biochemistry alumna, mentored by Craige
- Tyler Parker-Rollins, psychology senior, mentored by Scott Geller, alumni distinguished professor in the Department of Psychology in the College of Science
- Wenjing Yu, biological sciences senior, mentored by DiFeliceantonio



Leah Ellis (at right), TOUR Scholar, is a nutrition and dietetics junior at Radford University, who was mentored by Valisa Hedrick, HNFE associate professor (at left).



Katherine Lattig, TOUR Scholar, is an HNFE junior and was mentored by Julia Basso, HNFE assistant professor, during her time in the TOUR Scholars program.



Keaton Band, TOUR Scholar, is an HNFE senior and was mentored by Alexandra DiFeliceantonio, HNFE assistant professor and assistant professor in the Fralin Biomedical Research Institute at VTC, during his time in the TOUR Scholars program.

[Click or tap here to learn more about the TOUR Scholars program](#)

Undergraduate Student Accomplishments



JUSTIN LUY

Justin Luy earned a Bachelor of Science in Human Nutrition, Foods, and Exercise with a specialization in the Science of Food, Nutrition, and Exercise (SFNE) pathway this past spring. We're thrilled to share that he has embarked on the next chapter of his academic journey at VCOM-Virginia - Edward Via College of Osteopathic Medicine.



DELANIE TRIVITT

We celebrated National Transfer Student Week at Virginia Tech by highlighting one of our transfer students: Delanie Trivitt. Trivitt is in the Physical Therapy and Delight Club on campus and her favorite things about Virginia Tech include the interesting classes and fun weekends with friends. To all of our transfer students: Welcome and we're happy to have you!



ABBEEY STONE

Abbey Stone received a Bachelor of Science in Human Nutrition, Foods, and Exercise with a focus on the Dietetics option this fall. We're excited to share that she's now set to further her academic journey by pursuing her Master's of Science in Nutrition and Dietetics through the MSND program here at Virginia Tech. [Click or tap here to read more about this Hokie Grad.](#)



JULIA BURNS

Julia Burns, HNFE junior, served on the Homecoming Court this semester.

Each Homecoming Court candidate partners with a Virginia Tech department, unit, or organization whose work aligns with the goals of the candidate's platform. These departments then provide insight on best practices for the platform, and are uplifted in fundraising campaigns to ensure that regardless of who wins Homecoming Royalty, the causes that students care for are able to continue to be supported.

Julia's platform, "Hope to Walk," aims to provide low-cost prosthetics to those in need worldwide, with support from Services for Students with Disabilities. [Click or tap here to follow her journey on Instagram.](#)

Meet Alex Burns, proudly representing Kenilworth, New Jersey, and now an integral part of the vibrant Hokie Nation and HNFE family as part of the incoming VT '27 class.

Her hometown newspaper honored her accomplishments with a special feature.

[Click or tap here to read the full newspaper article.](#)



ALEX BURNS

Undergraduate Student Accomplishments



Hanna Santolla, recognized as a top graduating senior this fall in Human Nutrition, Foods, and Exercise within the College of Agriculture and Life Sciences, has been awarded the prestigious 2023 Phi Kappa Phi Medallion Award, an honor bestowed upon only one student per college at Virginia Tech. The Honor Society of Phi Kappa Phi is an honor society established in 1897 to recognize and encourage superior scholarship without restriction as to area of study.

She received her Bachelor of Science in Human Nutrition, Foods, and Exercise, specializing in the Science of Food, Nutrition, and Exercise (SFNE) pathway in December 2023. Following graduation, Santolla plans to take a gap semester, dedicating her time to volunteering as an emergency medical technician with the Blacksburg Volunteer Rescue Squad and working at LewisGale Hospital Montgomery and Carilion Clinic Patient Transport. She intends to go to medical school in Fall 2024.

[Click or tap here to read more about this Hokie Grad.](#)



Sara Do, a pre-med undergraduate research assistant in the lab of HNFE assistant professor Junco Warren, showcased groundbreaking work at the 2023 Network for Undergraduate Research in Virginia (NURVa) conference. Collaborating with David Sane from Carilion Clinic, Do's project utilized GCMS-based metabolomics to analyze plasma samples from heart failure patients with diabetes. Their innovative approach, leveraging advanced mass-spectrometry, unveiled unique metabolomic profiles, marking a significant stride in understanding this critical intersection of health conditions.



Lillian Snyder, HNFE sophomore, is our new Honors Phi Epsilon Kappa - Iota Epsilon President. Additionally, she was recognized at the Virginia Association for Health, Physical Education, Recreation, and Dance (APHERD) Convention for being Virginia Tech's Exercise Science Major of the year.

Meet our 2023-24 HNFE Student Ambassadors

The HNFE Ambassadors, dedicated student leaders, play an active role in promoting the department by participating in various recruiting events year-round. Their commitment and enthusiasm make them invaluable advocates for the program, showcasing the department's excellence to prospective students and stakeholders. These enthusiastic HNFE Ambassadors not only excel in representing the department at recruitment events but also serve as role models for their peers, inspiring a sense of community and commitment within the department. Through their efforts, they contribute significantly to the growth and success of the HNFE program. Keep reading to discover why our Ambassadors love HNFE.



NICOLE FORTH



ISABEL JOHNSON



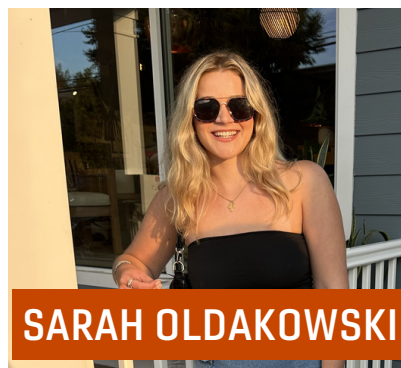
GRACIE MILLER



SADLER LUNDY



MAGGIE MAGUIRE



SARAH OLDAKOWSKI



SOFIA PARKINS

"I love HNFE because the professors and advising team are beyond amazing. They are all passionate about this major which makes me enjoy it that much more."

-Nicole Forth

"The faculty is so amazing and gives me the opportunity to study something I am passionate about, while getting prerequisites for school post-college."

-Sadler Lundy

"I love HNFE because I think the curriculum is super open and allows its students to explore all different types of classes to see what sparks interest and joy that can possibly turn into a career."

-Sofia Parkins

"I love HNFE because of all the career paths you can take with it. The classes and professors keep me engaged in what we are learning. The faculty truly has your best interest and is always available to lend a hand."

-Isabel Johnson

"I love HNFE because it is great for so many different health careers! I really enjoy that there are science classes in combination with classes that are super application based. I also absolutely love all of the HNFE professors! They are all so caring and go above and beyond to help students succeed!"

-Maggie Maguire

"I love HNFE because they offer so much help and guidance throughout your college career, the future can be stressful, and the entire team does everything they can to make it manageable."

-Sarah Oldakowski

"You get to learn from incredible professors about information pertaining to your dream career!"

-Gracie Miller

Clip or tap on the button below to view our HNFE Student Ambassador webpage to learn more about the program and to read the biographies of each Ambassador.

[HNFE Student Ambassadors](#)

Phi Epsilon Kappa Chapter Installation & Induction Ceremony

The Department of Human Nutrition, Foods, and Exercise filed a petition this semester to form a new chapter of Phi Epsilon Kappa at Virginia Tech and the new chapter, named the Iota Epsilon Chapter, was formed. To celebrate the occasion, we hosted a new member induction ceremony on Thursday, November 30 in the Fralin Auditorium. We welcomed thirty-five undergraduate students, one graduate student, and six faculty and staff members into the new chapter.

Undergraduate Inductees:

Kevin Arellano
Ashleigh Boquist
Connor Boquist
Zoe Benoudiz
Gabiella Bodale
Austin Cleveland
Ellie Coker
Maya Colins
Moe Elhassanny
Zane Edmonds
Maggie Froelich
Meghan Gary
Alexandra Gomez
Campbell Garner
India Givens
Hannah Greer
Ellen Jones
Erin Kerr
Megan Le
Noah Marsh
Ana Metcalf
Adrianna Moore
Ryan Muligan
Skylar Nesmith
Yujin Oh
Allison Peay
Aidan Perkins
Rebecca Pham
Madeline Skinner
Lillian Snyder
Jeremy Sessions
Marissa Sharif
Lauren Sustrick
Genevieve Tryon
Alexis Whitfield

Graduate Inductee:

Rebecca Mammel

Faculty/Staff Inductees:

Curtis Cox
Renee Eaton
Rodney Gaines
Molly Parker
Kerry Redican
Stella Volpe



The chapter was installed by David Lorenzi, the Executive Director of Phi Epsilon Kappa. The keynote speaker for the evening was Kerry Redican, a professor of population health sciences in the Virginia-Maryland College of Veterinary Medicine. The primary chapter advisor is Rodney Gaines, HNFE collegiate associate professor and graduate program director, with an advisory board consisting of Curtis Cox, graduate program coordinator; Renee Eaton, senior instructor and undergraduate program director; Molly Parker, collegiate assistant professor; and Stella Volpe, HNFE department head and professor.



Click or tap the button below to see more photos from the Phi Epsilon Kappa Chapter Installation & Induction Ceremony on our Facebook.

[Phi Epsilon Kappa Chapter Ceremony Facebook Photo Album](#)

Graduate Student Accomplishments



This August, we welcomed our new cohort of students enrolled in the Virginia Tech Master's of Science in Nutrition and Dietetics (MSND) Program, which prepares graduates to become Registered Dietitian Nutritionists (RDNs). We're excited for their journey ahead and wish them the best of luck.



Paige Harrigan, HNFE doctoral student under the mentorship of Sarah Misyak, HNFE research assistant professor, was selected as a fellow for the Science, Technology & Engineering in Policy (STEP) program through the Virginia Tech - School of Public and International Affairs.



Maria DeNunzio, HNFE doctoral student mentored by Sarah Misyak, HNFE research assistant professor, became the 2023 USA Triathlon Virginia State Champion, Sprint Distance, in the Female 25 to 29 years of age division.

Kicking off the semester in style! The HNFE Graduate Student Assembly (GSA) hosted a delicious "Welcome Back" brunch. Bagels, pastries, and good company - the perfect recipe for a successful semester!



Graduate Student Accomplishments



Cheyenne Leatham, HNFE master's student under the mentorship of Jay Williams, HNFE professor, ran and won the Hokie Half Marathon in the Female Division in September, where she finished the race with a time of 1:22:12:18, a 6 minute and 16 second average mile time. Talk about speedy!



Trisha Sterringer, HNFE doctoral student under the mentorship of HNFE professor, Enette Larson-Meyer, has earned the Foundation's Commission on Dietetic Registration Doctoral Scholarship, providing \$10,000 for the 2023-2024 academic year.



Stella Volpe (at far left), HNFE department head, met up with Erin Ryan (second from right), a student in the Master's of Science in Nutrition and Dietetics (MSND) program, during her Food Service Rotation at Virginia Tech Athletics, they brought a taste of Hawaii to Blacksburg. From classroom to kitchen, it's all about the 'Aloha' spirit and nutrition here at Virginia Tech!



Shadi Ariyanfar, HNFE doctoral student under the guidance of Deborah Good, HNFE associate professor, has received a Travel Grant from The Foundation for Prader-Willi Research to join the upcoming Scientific Day Conference. What's more, she received well-deserved recognition for her exceptional graduate poster at the 2023 Advancing Neuroscience Research at Virginia Tech Symposium.

Graduate Student Accomplishments



MATTHEW BRISENDINE

Matthew Brisendine, HNFE doctoral student, passed his qualifying exam this semester. His committee chair is Joshua Drake, HNFE assistant professor. Other committee members include Siobhan Craige, HNFE assistant professor; Robert Grange, HNFE professor; and Alicia Pickrell, associate professor in the School of Neuroscience.



ALLISON SANCHEZ

Allison Sanchez, HNFE doctoral student, passed her preliminary exam this semester. Her presentation was entitled, "Evaluating Nutrition Recommendations and Identifying Predictors to Promote Healthy Weight Gain through Whole Foods in Athletic Individuals. Enette-Larson Meyer, HNFE professor, is her committee chair. Other committee members include Brenda Davy and Stella Volpe, both HNFE professors, and Nicholas Barringer, the director of the U.S. Military-Baylor University Graduate Program in Nutrition.



MARIA DENUNZIO

Maria DeNunzio, HNFE doctoral student, passed her preliminary exam this semester. Sarah Misyak, HNFE research assistant professor, is her committee chair. Other committee members include Elena Serrano, HNFE professor; Maaz Gardezi, assistant professor of sociology; Vivica Kraak, HNFE associate professor; and Bailey Houghtaling, Gretchen Swanson Center for Nutrition Research Scientist and HNFE adjunct faculty.



TRISHA STERRINGER

Trisha Sterringer, HNFE doctoral student, passed her preliminary exam this semester. Her presentation was entitled, "The Effects of Energy Availability on Bone Metabolism and Body Composition in Recreational and Competitive Endurance Athletes." Enette Larson-Meyer, HNFE professor, is her committee chair. Other committee members include Craig Sale, professor of human physiology and nutrition at Manchester Metropolitan University in the United Kingdom; Lynn Cialdella-Kam, research dietitian in warfighter performance at the Naval Health Research Center; and Brenda Davy and Stella Volpe, both HNFE professors.



ROHIT RAMADOSS

Rohit Ramadoss, HNFE doctoral student, passed his preliminary exam this semester. His presentation was entitled, "The Effect of Curcumin on Oxidative Stress and Inflammatory Markers in Recreationally Active Women and Men." His committee chair was Stella Volpe, HNFE department head and professor. Other committee members include Michelle Rockwell, HNFE adjunct instructor; Michael Bruneau, professor of health sciences at Drexel University; and Enette Larson-Meyer, HNFE professor.



NICOLE LEARY

Nicole Leary, HNFE doctoral student, passed her qualifying exam this semester. Her committee chair was Vivica Kraak, HNFE professor. Other committee members included Enette Larson-Meyer and Elena Serrano, both HNFE professors, and Eojina Kim, associate professor in the Howard Feiertag Department of Hospitality and Tourism Management.

Graduate Student Accomplishments



MARY FRAIZER
Ph.D. Student



Mary Fraizer (photographed left), a translational biology, medicine, and health (TBMH) doctoral student advised by Samantha Harden, HNFE associate professor, and Emma Leslie (photographed right), TBMH doctoral student advised by Alexandra DiFeliceantonio, HNFE assistant professor, were featured in a video covering the second annual Flip the Fair, which brought graduate students to the Melrose Branch Library in Roanoke to present their research to elementary school students, who then critiqued the researchers' poster board presentations. Leslie had a story written about her research, which she presented at the event, on how ultra-processed food influences brain-reward response and energy intake in volunteer participants from 18 to 25 years of age. You can watch the video and read the article by clicking or tapping on the buttons below.

[Watch the video](#)

[Read the story](#)



Eleni Laskaridou, HNFE doctoral student, successfully defended her dissertation this semester. Her defense presentation was entitled, "Gut Microbiota-Generated Trimethylamine-N-Oxide and Cardiometabolic Health in Healthy Adults." Kevin Davy, HNFE professor, is her committee chair; other committee members include Brenda Davy, HNFE professor; Valisa Hedrick, HNFE associate professor; and Andrew Neilson, associate professor of food science and technology.



Rebecca Mammel, HNFE doctoral student advised by Siobhan Craige, HNFE assistant professor, received the Outstanding Women Student-Athlete Individual Sport Award this semester. She was recognized for this achievement in November at the Virginia Association for Health, Physical Education, Recreation, and Dance (APHERD) Convention. Mammel was also recognized for being Virginia Tech's Sport and Fitness Major of the year.

ALUMNI NEWS



What a small world! Three HNFE dietetics graduates from Virginia Tech, (from left to right) Carolyn Green '17, Elizabeth Ressler '12, and Maggie Do '14 ended up working together at the same hospital in Landstuhl, Germany. Thanks for sharing this photo with us, you three.



Jamie Plodzik, MS, RD '22, '23 is a Registered Dietitian Nutritionist (RDN) at VIDA Fitness and she's shared her first professional blog with us. Thanks for sharing! The blog covers how to naturally lower your cholesterol concentrations. [Click or tap here to read the blog by this HNFE alumna.](#)



Emily Massi, a 2017 alumna of Virginia Tech's Internship in Nutrition and Dietetics, was recognized by The Shelby Report as a 2023 Women of Influence in the Food Industry Winner.



Lindsay Herra, HNFE alumna, started her role as Supervisory Research Dietitian of the Metabolic Kitchen at the National Institutes of Health (NIH) in November 2023. Herra received her master's in 2020 and was mentored by Kevin Davy and Brenda Davy, both HNFE professors, and Ben Katz, associate professor of human development & family studies.

EXTENSION NEWS

Virginia Tech, Virginia State University lead effort to ‘Come to the Table’

To address food system resilience and security, the commonwealth’s land-grant institutions partnered to study the food value chain in the state to affect positive change through Virginia Cooperative Extension’s vast network.



The commonwealth’s two land-grant institutions partnered to study the food value chain in the state to enhance food-system resilience and address systemic food insecurity. Photo by Sam Dean for Virginia Tech.

Virginia Cooperative Extension, the College of Agriculture and Life Sciences at Virginia Tech, and the College of Agriculture at Virginia State University are working together to improve food security and combat hunger across the commonwealth by addressing the many causes brought to the forefront over the last few years.

The commonwealth’s two land-grant institutions partnered to study the food value chain in the state to enhance food-system resilience and address systemic food insecurity. The results of the research enabled the multi-institutional team to:

- Develop and formalize an internal integrated multi-disciplinary food system planning approach across the College of Agriculture and Life Sciences at Virginia Tech and Extension program teams.
- Build capacity for coordination, cooperation and collaboration across the land-grant universities to affect greater resilience within the food system and communities.

“If there isn’t collaboration, coordination, and communication among faculty members or colleges, then the ability to respond in a quick and comprehensive way is limited,” said Eric Bendfeldt, an Extension specialist with Virginia Tech’s School of Plant and Environmental Sciences. “We wanted to connect the dots and put the pieces of the puzzle of Virginia’s food system together.”

By improving coordination and communication across the commonwealth, Extension, the College of Agriculture and Life Sciences at Virginia Tech, and College of Agriculture at Virginia State University intend to aggregate and improve the distribution of food to areas that continue to experience dips in production and delays in food processing that can limit access and availability.

Andrea Wann, Extension agent in Washington County and SNAP-Ed Agent with the Family Nutrition Program, was a part of the project. Wann was one of twelve researchers on the team.

Virginians are served best and Virginia Cooperative Extension functions optimally when institutions and communities come to the table to discuss issues. The Petersburg forum included community members who are combatting food insecurity and food access.

[Click or tap here to read the full story.](#)

FACULTY + STAFF NEWS

New Faces in the Department



SUMITA MISHRA

Sumita Mishra joined our department in October 2023 as an assistant professor in the Fralin Biomedical Research Institute (FBRI) and in the Department of Human Nutrition, Foods, and Exercise. Mishra has been hired in the FBRI's Center for Exercise Medicine Research (CEMR), which is directed by Zhen Yan, who is also an HNFE professor.



MOLLY PARKER

We welcomed Molly Parker, collegiate assistant professor, to the HNFE team in August 2023. Parker is a triple Hokie who completed the Virginia Tech Dietetic Internship through the Individualized Supervised Practice Pathway and received her Registered Dietitian Nutritionist (RDN) credential. Prior to this role, Parker was a Graduate Teaching Assistant within HNFE for five years. Her research has centered on dietary assessment methodology.



RODNEY GAINES

In August 2023, we welcomed Rodney Gaines, our new graduate program director and collegiate associate professor, to HNFE! He's a triple Hokie, has been a professor for 23 years (most recently at Hampton University), and has served 10 years as a Head Strength and Conditioning Coach at several universities in the Commonwealth. In 2022, he was awarded by the American College of Sports Medicine (ACSM) to participate in their Leadership and Diversity Program. He was also inducted into the Amateur Athletic Union (AAU) Strength Sports Hall of Fame. His research interests include body composition, obesity, and strength training.



KIM DOWDY

Kim Dowdy started working in our department in October 2023 as our new assistant director of business operations in HNFE. Dowdy's diverse background includes experience working in Student Affairs, teaching internationally, and completing a Master's in Teaching. She joins us from Virginia Tech's Center for International Research, Education, and Development.

CHARLES NAJT

Charles "Charlie" Najt, our new assistant professor in HNFE, joined our department in October 2023. Najt comes to us from the University of Minnesota, where he completed a postdoctoral fellowship in the Department of Biochemistry and Molecular Biology. His bachelor's degree and doctoral degree are from Michigan State University in Biochemistry and Molecular Biology. His research delves into lipid metabolism's role in disease and its impact on healthspan.



Faculty Accomplishments



Julia Basso, HNFE assistant professor, is making waves with her remarkable achievements across various domains. She was honored with the Virginia Tech College of Agriculture and Life Sciences Diversity and Inclusion Service Award at the 28th annual Celebration of Faculty and Staff picnic. Basso's commitment to fostering an inclusive environment stands as a beacon of inspiration.

Additionally, Basso's involvement as a co-principal investigator on a Virginia Tech Institute for Critical Technology and Applied Science (ICTAS) EFO-Opportunity Seed Investment Grant—a \$10,000 initiative entitled, "Preliminary investigation of adaptive training in recreational runners to improve psychological readiness, joint coordination, and movement variability," showcases her dedication to pioneering research at the intersection of health and performance. Collaborating with Robin Queen, professor of biomedical engineering and mechanics and principal investigator, and Scotty Hartwig, assistant professor in the School of Performing Arts and another co-investigator, this project promises innovative insights into enhancing training methodologies.

Further amplifying her impact, Basso's Embodied Brain Laboratory garnered attention and was prominently featured in Virginia Tech News (see the Daily Doodle on the right)—a testament to the lab's groundbreaking work and its significant contributions to the academic discourse.



Junco Warren, HNFE assistant professor, is co-principal investigator on a project, entitled "Establish an AI-based prediction platform for identifying SGLT2i responders using metabolomics data." The project is funded by a Virginia Tech Institute for Critical Technology and Applied Science (ICTAS) seed grant. Liqing Zhang, professor of computer science, is the principal investigator of the project and David Sane, chair of cardiology at Carilion Clinic, is another co-investigator. The long-term goal of this project is to develop precision medicine to treat individuals with heart failure and type 2 diabetes mellitus and reduce economic burden in the treatment of heart failure.



The Regional Accelerator and Mentoring Program (RAMP) has added 5 innovative startups to its Fall 2023 cohort, featuring pioneering health and life science ventures statewide. Among them is "Good Foods Group, LLC" led by HNFE associate professor Deborah Good. The program will include an intensive semester of in person training in product development and launching, as well as a \$20,000 non-equity fund for the company, Good Foods Group. Good Foods Group is in the process of developing bars and k-cups containing the nutraceutical conjugated linoleic acid (CLA) for use in weight loss and maintenance. [Click or tap here to find more information about Good's company.](#)

Alexandra DiFeliceantonio, HNFE and Fralin Biomedical Research Institute assistant professor, was quoted in a recent Scientific American article discussing food addiction. [Click or tap here to read the full article.](#)

Faculty Accomplishments



Valisa Hedrick and Renee Eaton were promoted in June 2023. Hedrick was promoted to associate professor with tenure and Eaton was promoted to senior instructor. [Click or tap here to read more about these accomplishments.](#)



Siobhan Craige, HNFE assistant professor, and Amanda MacDonald, high-impact practices librarian in the University Libraries, received funding for their project, entitled, "Developing online training resources to promote undergraduate wet lab researcher success," by the University Libraries Collaborative Research Grant.



Over the summer, Alexandra DiFeliceantonio, HNFE assistant professor, delivered an engaging presentation at Tech on Tap entitled, "How Our Brains Influence Food Preference," hosted at Port City Brewing Company in Alexandria, Virginia. Another remarkable session occurred in July, where Julia Basso, HNFE assistant professor, presented on "Moving Minds: Dance & Interpersonal Synchrony," at Rising Silo Brewery in Blacksburg.



Deborah Pollio, HNFE academic advisor, will retire on January 1, 2024. Join us in extending our heartfelt thanks, congratulations, and best wishes on her well-deserved retirement, after serving Virginia Tech for 28 years, and dedicating nearly 8 years of service to HNFE.

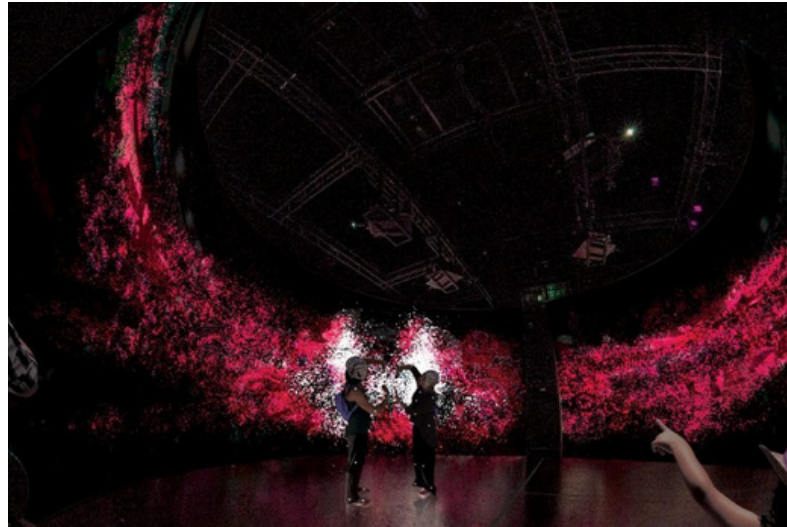
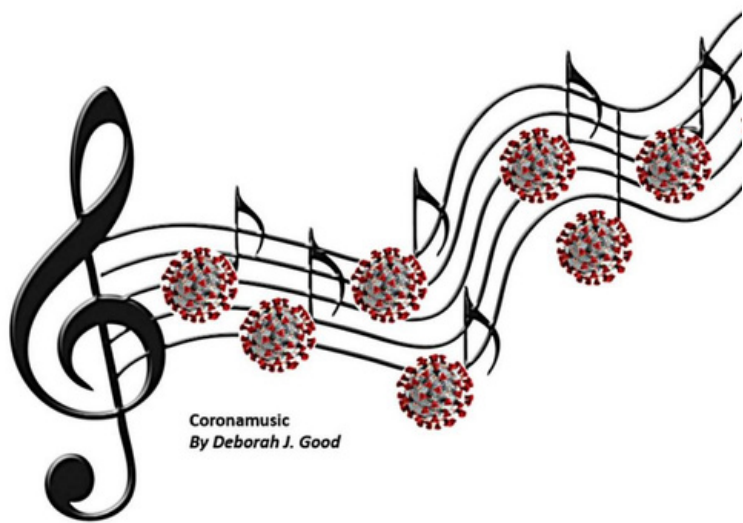
In her retirement, she will be teaching HNFE 1984, which helps CALS students succeed in CHEM 1035. HNFE 1984 will be held on Thursdays and it is a one-credit course pass/fail course.

In October, Elena Serrano and Brenda Davy, HNFE professors, were honored at a Research Excellence Celebration. Serrano and Davy were recognized in the "Major Sponsored Grant Award" category for 2023.



Synaptic Soiree celebrates partnership between Virginia Tech and the City of Alexandria

Celebrating the partnership between the Institute for Creativity, Arts, and Technology (ICAT) and the City of Alexandria, the event at the Torpedo Factory Art center showcased three performance pieces created by members of ICAT.



On September 15 (by invitation only) and 16 (open to the public), in the Grand Hall of the Torpedo Factory Art Center in Alexandria VA, three performances ignited the stage.

Synaptic Soiree was an evening of party and performances featuring three intriguing projects from the Virginia Tech Institute of Creativity, Art, and Technology's vibrant teams of researchers and artists, selected specifically for the City of Alexandria and Northern Virginia audience. The evening marked the official launch of Sound Horizons, the first collaboration between ICAT and the City of Alexandria Office of the Arts.

The performances pushed the limits of sound and performance; they explored scored data composed of music exploring infectious diseases, neuroscience, including Atrium, meditation, PTSD, and more, as well as the juxtaposition of new technology and the human body.

Two of the performances were made possible by HNFE faculty members and graduate students, past and present. The first performance 'Embodied Art' was a stunning performance by Julia Basso, HNFE assistant professor, and Noor Tasmin, a translational biology, medicine, and health (TBMH) doctoral student being mentored by Basso. The overarching goal of Embodied Art was to build an immersive environment that combined cutting-edge science with dance, music, and visual art. This environment enabled performers to experience their brain and body physiology through interactive free-play experiences. Embodied Art hoped to cultivate an understanding of how the human body and art interact bidirectionally; that is, how an artist's body can produce art that can affect their health. Participants wore caps that record brain activity (electroencephalography) and motion capture markers in the immersive environment. Brain activity and movement were recorded simultaneously and transformed into different sounds in real-time.

The second performance 'Playing COVID Proteins' was a mesmerizing collaboration between Deborah Good, HNFE professor; Charles Nichols, associate professor of composition and creative technologies in the Virginia Tech School of Performing Arts; and Shannon Mauro, a former graduate student of Good's. The COVID-19 virus, SARS-CoV-2, was first recognized in December 2019 and was declared a public health emergency and then a pandemic by March 2020. In the United States to date, this has resulted in over 99 million cases, and 1.1 million deaths. The introduction of a vaccine against the SARS-CoV-2 spike protein "S" has resulted in administration of 657 million doses, accounting for nearly 81% of the US Population having completed their primary series and received their bivalent "new" vaccine dose. The new bivalent vaccine was made in response to the differences in the viral S protein variants during viral evolution. In this project, the team sought to use the process of "sonification" to convert the SARS-CoV-2 viral strains with their S protein variants, the county of origin for the variants and the rise and fall of the variants to music, as a representation of the timeline of the COVID-19 pandemic.

Click or tap the buttons below to learn more about each performance or watch a video about the Synaptic Soiree.

[Read more about 'Embodied Art'](#)

[Read more about 'Playing COVID Proteins'](#)

[Watch a video about Synaptic Soiree](#)



FACULTY JOIN EFFORT TO MAKE VIRGINIA TECH A CERTIFIED DIGITALLY WELL UNIVERSITY

As Virginia Tech worked to become the first Certified Digitally Well University in the nation, Laurie Fritsch, assistant director of Hokie Wellness, recruited a secret weapon in the battle to get students to put down their screens: faculty members. Last spring, a pilot group of instructors shared slides and videos in class about the dangers of technological distraction and the benefits of living life offline.

“Did you know that multitasking can add up to a loss of 40 percent of your productivity?” asked one slide. Another warned, “Students who can see the screen of a multitasker’s laptop (but were not multitasking themselves) score up to 17 percent lower on comprehension than those who had no distracting view.” A video showed a student breaking up with her phone. “It’s not me,” she said, “it’s you.” The messaging, said Fritsch, “helps both faculty and students think about their digital intentions and boundaries.”

Faculty were a vital element of the digital wellness initiative, created in collaboration with Christina Crook of JOMO (Joy of Missing Out), because they unwittingly create some of the unrelenting pressure for students to be always online.

After showing the slides about digital well-being, Angela Anderson, collegiate associate professor in the Department of Human Nutrition, Foods, and Exercise, had students set goals to be more intentional about device usage. When phones started to emerge more as the semester wore on, she prompted, “Let’s revisit our goals.”

[Click or tap here to read the full story.](#)

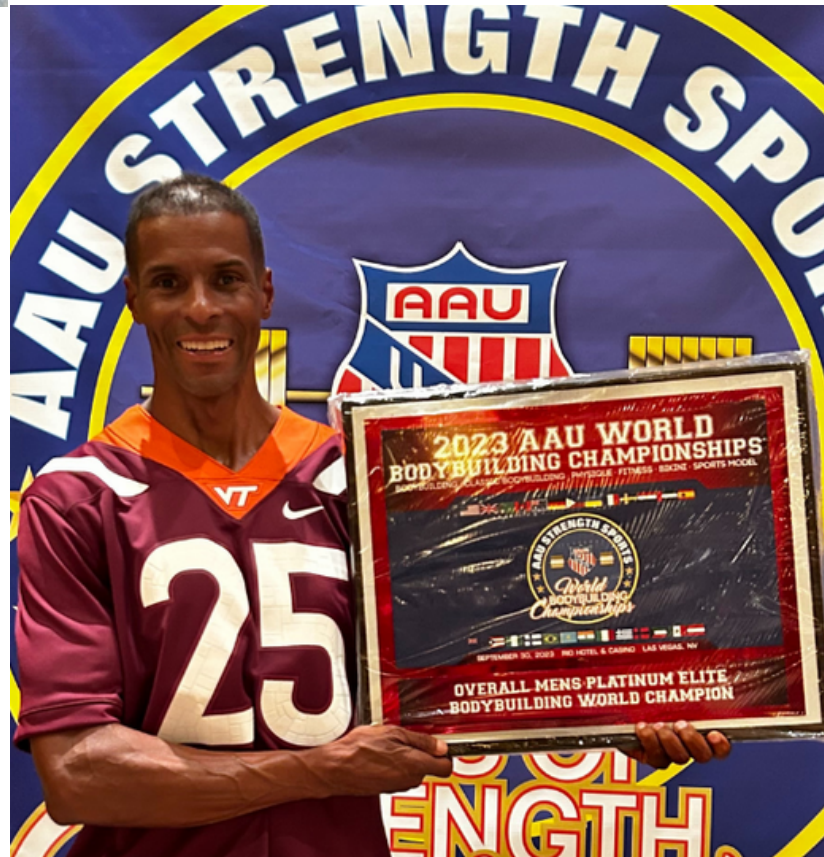
RODNEY GAINES SCORES MULTIPLE TITLES AT THE AMATEUR ATHLETIC UNION WORLD CHAMPIONSHIPS

In a striking display of dedication to his sport, Rodney Gaines, collegiate associate professor in the Department of Human Nutrition, Foods, and Exercise in the College of Agriculture and Life Sciences at Virginia Tech, won the Amateur Athletic Union Senior Male Athlete of the Year and the Overall Male Athlete of the Year for Strength Sports awards at the 2023 Amateur Athletic Union Mr. Universe and Mr. World Championships.

Gaines, a triple Hokie, also competed in multiple divisions at the championships, including Sports Model, Fashion Model, Bodybuilding Open, Masters Divisions, and Classical Bodybuilding Open and Master Divisions at the event held in Las Vegas in late September.

Beyond the bodybuilding stage, Gaines displayed his versatility in the modeling arena. He won both the Amateur Athletic Union Sports Model and Amateur Athletic Union Fashion Model categories within the Mr. Universe and World Championship events.

One of the most notable highlights of the competition was Gaines’s victory in the Platinum Elite category, where he competed at the professional level of bodybuilding within the Amateur Athletic Union Mr. Universe and World Championships.



[Click or tap here to read the full story.](#)



RESEARCHERS AWARDED \$3.3 MILLION GRANT TO INVESTIGATE EXERCISE, SKELETAL MUSCLE MITOCHONDRIAL FUNCTION, AND ALZHEIMER'S DISEASE PROGRESSION

Researchers in the Department of Human Nutrition, Foods, and Exercise in the Virginia Tech College of Agriculture and Life Sciences were awarded a \$3.3 million grant from the National Institutes of Health to investigate Alzheimer's disease, a serious condition that affects millions of individuals worldwide and poses significant challenges to patients, families, and health care systems.

Alzheimer's disease primarily targets the brain, causing memory problems and other difficulties. Researchers have discovered that our muscles, particularly the tiny energy factories inside them called mitochondria, might have a role to play in the development of Alzheimer's disease. They've also found that mitochondrial health, particularly of skeletal muscle, can be maintained into advancing age through regular exercise – but whether exercise is equally beneficial in Alzheimer's disease is controversial.

Joshua Drake and Junco Warren, both assistant professors in the Department of Human Nutrition, Foods, and Exercise and the principal investigator and co-investigator, respectively, on the project, have teamed up to figure out how muscle mitochondria behave when someone has Alzheimer's disease. By exploring this crucial knowledge gap, Drake and Warren, also an assistant professor of the Fralin Biomedical Research Institute at VTC, hope to find important clues about how Alzheimer's disease develops and why it affects people the way it does.

[Click or tap here to read the full story.](#)

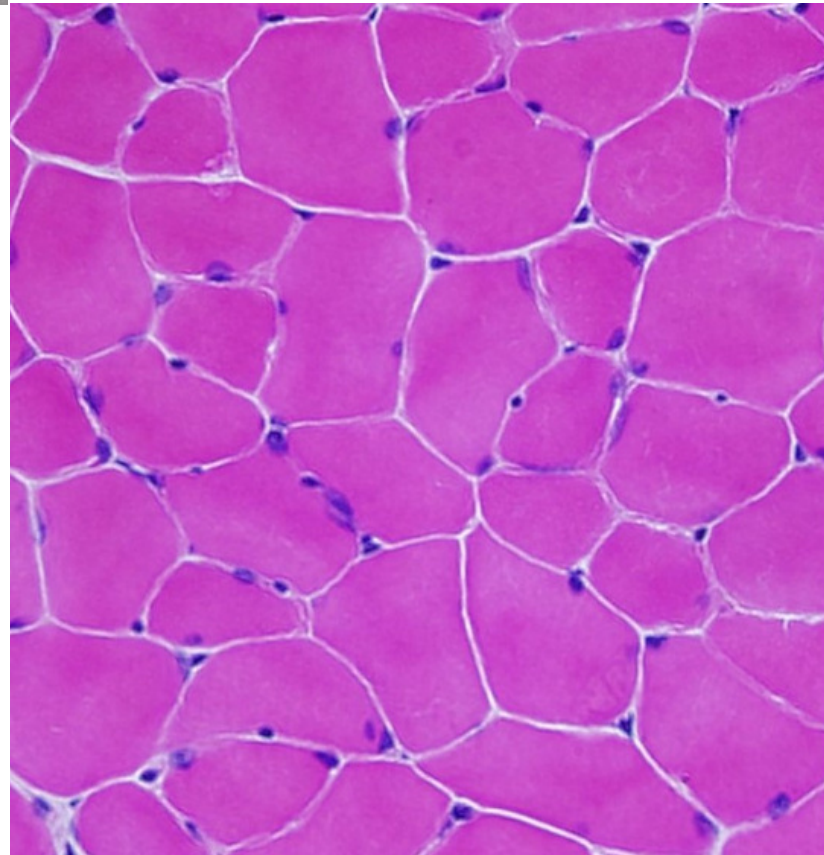
RESEARCHERS AWARDED GRANT TO STUDY POTENTIAL THERAPEUTIC AVENUES FOR FACIOSCAPULOHUMERAL MUSCULAR DYSTROPHY

Researchers in the Department of Human Nutrition, Foods, and Exercise in the Virginia Tech College of Agriculture and Life Sciences were awarded a nearly \$130,000 grant from the venture philanthropy organization SOLVE FSHD to research potential therapeutic avenues for facioscapulohumeral muscular dystrophy.

Facioscapulohumeral muscular dystrophy (FSHD) is a rare genetic neuromuscular disorder that progressively weakens and atrophies muscles. It takes its name from the areas of the body it typically affects: the facial muscles (facio-), shoulder blades (scapulo-), and upper arms (humeral). Although it affects a relatively small number of individuals, with an estimated prevalence of 1 in 8,000, it can profoundly impact those who have it and their families.

Professor Robert Grange, assistant department head of human nutrition, foods, and exercise and director of the Metabolism Core at Virginia Tech, is one of the investigators on the project. His research will center on assessing skeletal muscle torque as a functional outcome measure in a specialized mouse model of facioscapulohumeral muscular dystrophy. By focusing on this mouse model, Grange aims to unravel critical insights into the underlying mechanisms of the disorder and develop innovative strategies for intervention and treatment.

Grange will partner with Scott Harper, a distinguished researcher from Nationwide Children's Hospital who developed the facioscapulohumeral muscular dystrophy mouse model used in the funded study.



[Click or tap here to read the full story.](#)



RESEARCHERS LINK FOOD INSECURITY, FINANCIAL HARDSHIP DURING COVID-19 TO TRAIT ASSOCIATED WITH POOR HEALTH CHOICES

A month after COVID-19 effectively shuttered the U.S. economy, scientists at the Fralin Biomedical Research Institute at VTC saw an opportunity to learn how the perception of scarcity during the pandemic was influencing our health choices. Research consistently shows that higher delay discounting, a preference for smaller rewards delivered sooner over larger rewards delivered later, is a trait associated with a range of unhealthy behaviors, such as high-calorie food purchases, lower vegetable consumption, less frequent exercise, and addictive disorders. As a result, that neurocognitive trait is seen as a potential target to treat and prevent lifestyle-related diseases and addictions.

Most research linking scarcity and delay discounting, however, has been hypothetical and conducted in laboratory settings. The lived experience of resource scarcity brought on by the pandemic, along with the uncertainty of those early months, gave researchers an opening to validate previous research by examining decision-making by people who had experienced changes in their employment or income. Their findings are in the September issue of Behavioural Processes.

"The economic impact of COVID-19 provided a natural experiment to examine scarcity, since a large number of people were experiencing these impacts at the same time," said Jeff Stein, corresponding author of the study and assistant professor at the Fralin Biomedical Research Institute.

[Click or tap here to read the full story.](#)

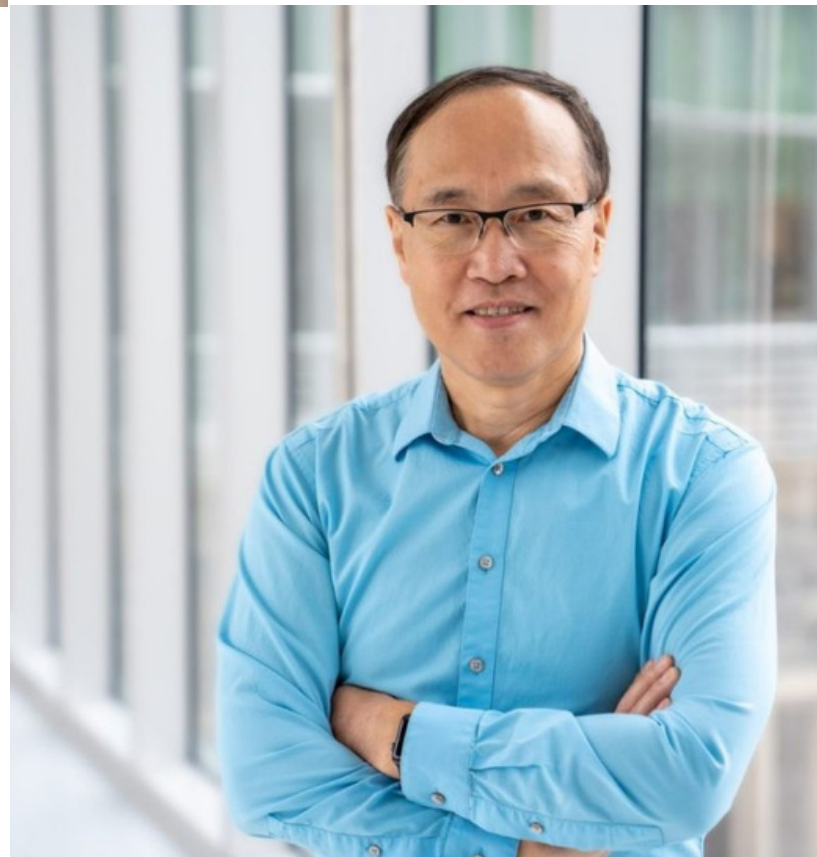
LANDMARK \$50 MILLION GIFT TO DRAMATICALLY EXPAND HEALTH SCIENCES RESEARCH AT VIRGINIA TECH

The Richmond-based Red Gates Foundation has committed \$50 million to the Fralin Biomedical Research Institute at VTC to accelerate health sciences research at Virginia Tech. The gift is among the largest ever made to the university.

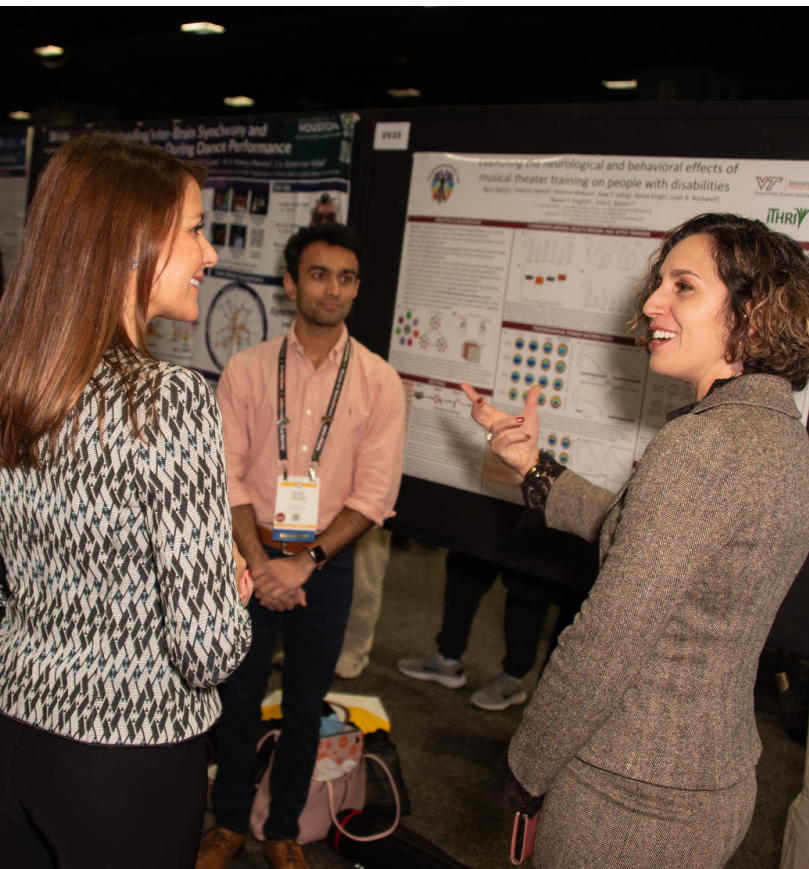
A majority of the gift will go toward recruiting 14 researchers focused largely on cancer, but also on neuroengineering and computational neuroscience. A third of the gift will support six major research projects, directed toward cancer and brain disorders in adults and children. Each of the six projects will be led by a senior Fralin Biomedical Research Institute faculty member based in Roanoke.

Expanding the international scope of the university's research enterprise and becoming a top 100 global university is a principal objective of Virginia Tech this decade. The Red Gates Foundation gift, which equals the two largest ever made to the university, will help a great deal by allowing the university's premier health sciences research institute to increase by roughly one-third the number of faculty-led research teams.

One of the six immediate projects that will be made possible by the Red Gates Foundation gift is the development of a compound that mimics exercise for promoting health and preventing and treating non-communicable diseases including cancer in work led by Zhen Yan, HNFE professor, with collaborator Webster Santos, professor of chemistry.



[Click or tap here to read the full story.](#)



VIRGINIA TECH RESEARCHERS PAID A ROYAL VISIT AT NATIONAL NEUROSCIENCE CONFERENCE

Virginia Tech researchers in the College of Agriculture and Life Sciences at Virginia Tech presented some of their research to Princess Marie of Denmark at the 2023 Society for Neuroscience Conference in Washington, D.C. During this conversation, Julia Basso, assistant professor of human nutrition, foods, and exercise and affiliate faculty member of the School of Neuroscience and the Autism Clinic and Center for Autism Research, and her research team from the Embodied Brain Lab shared their research "Examining the Neurological and Behavioral Effects of Musical Theater Training on People with Disabilities."

Lead author Noor Tasnim, a translational biology, medicine, and health graduate student mentored by Basso, who is also a fellow of the Center for Health Behaviors Research at the Fralin Biomedical Research Institute at VTC, delved into the exploration of the impact of performing arts training on the brain and behavior of individuals with disabilities. Their findings suggest that engaging in performing arts may offer a unique avenue to enhance mental health, particularly addressing anxiety within this population.

They also found that musical theatre engagement enhances the flow of information within the brain, also known as intra-brain synchrony, as well as the interaction of brain activity between the performers, often referred to as inter-brain synchrony.

Through this community-based participatory research and collaboration with STEP VA, a nonprofit organization in Fredericksburg, the findings underscore the commitment to empowering individuals with disabilities through musical theatre.

[Click or tap here to read the full story.](#)

FACULTY LIVE LIKE STUDENTS FOR FIRST-OF-ITS-KIND INTERNATIONAL TRAINING

The 11 faculty members learning to build, launch, and lead study abroad programs found that their roles had been reversed. They were sleeping where their students would sleep. They were eating where their students would eat. Doing laundry, catching trains, attending classes – all the tasks their future students would one day have to navigate – they experienced themselves as participants in a first-of-its-kind immersive development program this summer at the Steger Center for International Scholarship. Two of the participants in the faculty development workshop included Vivica Kraak, HNFE associate professor, and Nicolin Girmes-Grieco, HNFE senior instructor.

The program, developed by the Global Education Office and the Center for Education, Teaching, and Learning (CETL), allowed the participants from across the university to experience the study abroad environment and forge connections with local entities. "You can't do that by staying home in Blacksburg," Sands said.

Global Education Office Director Theresa Johansson said the workshop was designed to help faculty members learn location-based nuances such as how to integrate local resources and community partnerships into lessons and how to navigate the logistics of living and teaching abroad. For nearly a week at the Steger Center, the university's base of operations for a growing number of undergraduate and graduate international education programs, participants had opportunities for one-on-one consultations with Johansson and Sara Steinert Borella, the executive director of the Steger Center, as well as other facilitators from the Global Education Office and CETL. Over dinner, on train rides, or with an afternoon gelato, ideas were developed and refined and schedules were created.



[Click or tap here to read the full story.](#)



PUBLICATIONS BY VIRGINIA TECH RESEARCHERS FEATURED IN THE BRITISH MEDICAL JOURNAL

Publications by Virginia Tech researchers could reshape the way we view artificial sweeteners and their impact on our global diet. Valisa Hedrick, an associate professor and registered dietitian nutritionist in the Department of Human Nutrition, Foods, and Exercise in Virginia Tech's College of Agriculture and Life Sciences, gained recognition for her publication in the prestigious British Medical Journal.

Hedrick's manuscript, "Non-sugar sweeteners: helpful or harmful? The challenge of developing intake recommendations with the available research," delves into the extensive use of non-sugar sweeteners, also known as artificial sweeteners, as substitutes for added sugars in the global food supply. Her recent publication also highlights the existing ambiguity and disagreement in recommendations concerning their consumption, along with a notable shortage of research designed to provide long-term health effect evidence.

The uncertainty surrounding non-sugar sweeteners is rooted in differing study designs, methodologies, and interpretations of research findings. Hedrick's research emphasizes the urgent need for additional comprehensive studies. As non-sugar sweeteners continue to become more prevalent in global diets, her work highlights the necessity for tailored guidelines that consider individual types of non-sugar sweeteners and target specific populations, such as children, pregnant and breastfeeding women, and individuals with diabetes.

Hedrick's manuscript provides guidelines for planning future studies on non-sugar sweeteners, aiming to advance this underexplored field of research.

[Click or tap here to read the full story.](#)

INTERNATIONAL TEAM OF SCIENTISTS SAYS IDENTIFYING SOME FOODS AS ADDICTIVE COULD STIMULATE RESEARCH, SHIFT ATTITUDES

Researchers from the United States, Brazil, and Spain, including scientists with the Fralin Biomedical Research Institute at VTC, published an analysis in a special edition of the British Medical Journal with a timely and controversial recommendation: It's time for an international shift in the way we think about ultra-processed food.

"There is converging and consistent support for the validity and clinical relevance of food addiction," said Ashley Gearhardt, the article's corresponding author and a psychology professor at the University of Michigan. "By acknowledging that certain types of processed foods have the properties of addictive substances, we may be able to help improve global health."

While people can give up smoking, drinking, or gambling, they can't stop eating, said co-author Alexandra DiFeliceantonio, assistant professor at the Fralin Biomedical Research Institute. The challenge, and the still open and controversial question, is defining which foods have the most potential for addiction and why.

Their work was published Oct. 10 in Food For Thought, a special edition of the British Medical Journal, a high-impact publication and one of the world's oldest medical journals.

"Most foods that we think of as natural, or minimally processed, provide energy in the form of carbohydrate or fat – but not both," DiFeliceantonio said.



[Click or tap here to read the full story.](#)



FACULTY DO THEIR HOMEWORK FOR THE FALL SEMESTER

As the new semester approaches, students and faculty have different ways of preparing for the fall. While students have been preoccupied with thoughts about packing and moving back to campus, faculty have been focused on preparing to be back in the classroom and their teaching content. So much of their work happens behind the scenes.

“Putting together a really good one-class session with new, solid content and active learning experiences, each one hour of time in a classroom can take up to eight hours of prep from a faculty member,” said Heather Cox, senior instructor in the Department of Human Nutrition, Foods, and Exercise and director of the Didactic Program in Dietetics.

Canvas is one of the biggest tools used in the classroom. Faculty spend a lot of time updating the schedule for their classes and setting up Canvas in preparation.

“It’s important that my students see a polished, well-organized Canvas course so they know what to expect during the semester. It can take up to a full day to set all of the assignment deadlines for the semester so that the Canvas calendar functions properly,” said Megan Emori, advanced instructor for the Department of Biological Sciences.

It goes beyond just the previous year’s lesson plans. Faculty use all their resources, including other students and the SPOT evaluations to help create new and exciting content.

[Click or tap here to read the full story.](#)

NEW FRALIN BIOMEDICAL RESEARCH INSTITUTE RESEARCHER PURSUES HEART FAILURE THERAPIES

Some people’s hearts just can’t catch a break – literally. For patients with a prevalent subtype of heart failure, their hearts contract properly but never fully relax. This constant tension impairs the heart’s ability to fill up and replenish blood flow.

The Fralin Biomedical Research Institute at VTC recently recruited molecular biologist Sumita Mishra to investigate new treatments for this increasingly common cardiometabolic disease: heart failure with preserved ejection fraction, or HFpEF. She started in October.

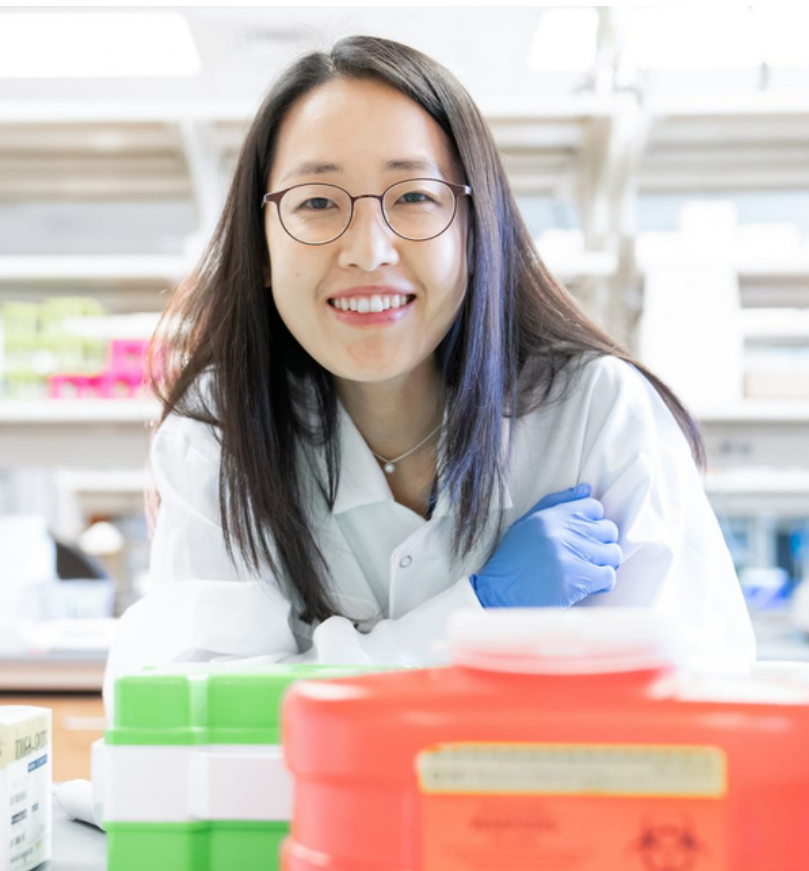
“Our lab will help define the precise mechanisms underlying HFpEF, so we can develop more effective, targeted treatments and help millions of people living with this condition,” Mishra said. She joins the institute’s Center for Exercise Medicine Research, which opened last year, as an assistant professor.

Mishra’s laboratory studies the molecular pathways that go awry in heart failure. In particular, the lab examines biological differences underlying cardiometabolic processes in men and women with heart failure.

“We know that postmenopausal, obese women have the highest risk of developing this form of heart failure, yet the molecular differences between men and women are still largely a mystery,” said Mishra, who also holds an appointment in Virginia Tech’s Department of Human Nutrition, Foods, and Exercise.



[Click or tap here to read the full story.](#)



FRALIN BIOMEDICAL RESEARCH INSTITUTE AT VTC SCIENTIST IDENTIFIES A CONNECTION IN THE BRAIN BETWEEN STRESS AND EMOTIONAL EATING

If you've had a near miss accident in your car or suffered the intimidation of a menacing person, you've probably felt it – a psychological reaction to a threat called a fight or flight response. Your heart rate climbs, anxiety washes over you, you might shake or sweat.

But hours after that stress passes, you may feel another response – a powerful desire for comfort food, that highly processed, high-fat stuff you know isn't good for you. It can relieve stress and tension and provide a sense of control. Emotional eating following a stress-triggering interaction is familiar to many of us, and to scientists as well. But how a threat signals your brain to want comfort food has been unknown.

Now, a Virginia Tech scientist has pinpointed a molecule found in a region of the brain called the hypothalamus that is connected to changes in the brain that lead to emotional overeating. Sora Shin, assistant professor at the Fralin Biomedical Research Institute at VTC, and her research team described the discovery in a paper published Oct. 28 in Nature Communications.

"We don't always eat because we are hungry and we have certain physical needs," said Shin, who is also an assistant professor in the Department of Human Nutrition, Foods, and Exercise in Virginia Tech's College of Agriculture and Life Sciences. "Whenever we get stressed or feel some threat, then it can also trigger our eating motivation. We think this molecule is the culprit."

[Click or tap here to read the full story.](#)

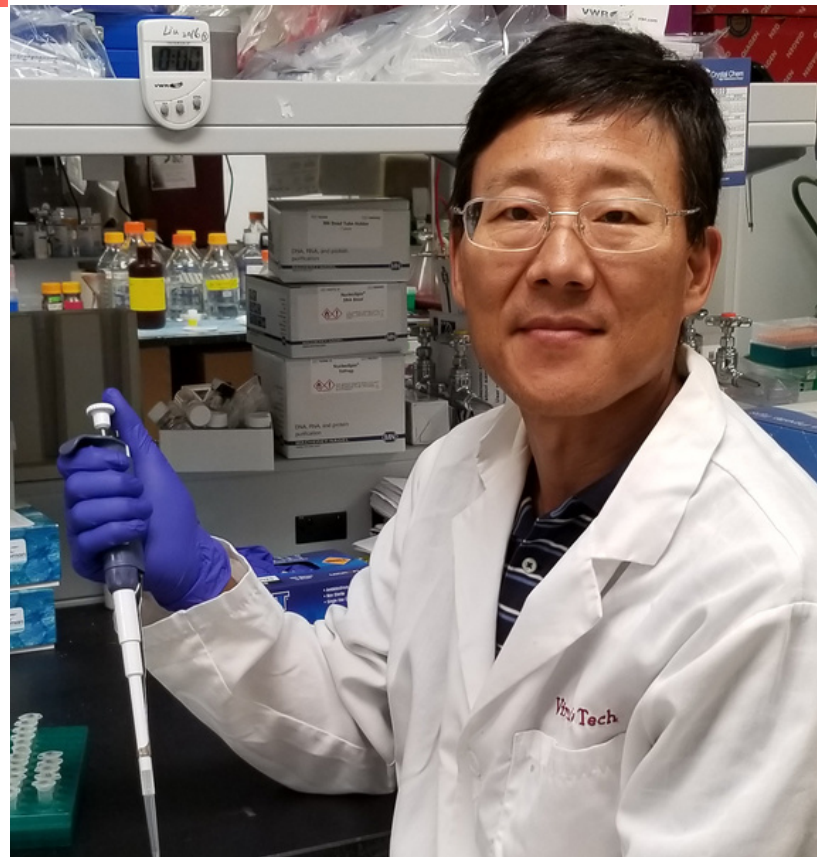
VIRGINIA TECH RESEARCHERS AWARDED NEARLY \$2 MILLION GRANT TO EXPLORE NEW TREATMENT FOR TYPE 2 DIABETES AND OBESITY

A team of Virginia Tech researchers has been awarded nearly \$2 million from the National Institute of Diabetes and Digestive and Kidney Disease, part of the National Institutes of Health, to explore novel approaches for treating Type 2 diabetes and obesity.

Type 2 diabetes affects over 38.4 million Americans, with an estimated 1.4 million new cases diagnosed every year, according to the Centers for Disease Control and Prevention. Type 2 diabetes occurs when the body struggles to regulate blood sugar levels due to insulin resistance or insufficient insulin production by the pancreas, or sometimes both. Despite the widespread use of conventional drugs for treating Type 2 diabetes, its prevalence continues to rise in the United States.

The multidisciplinary research project, led by principal investigator Dongmin Liu, a professor of human nutrition, foods, and exercise in the College of Agriculture and Life Sciences, unites experts across diverse fields. The team includes co-investigators Elizabeth Gilbert, professor in the School of Animal Science; Mark Cline, professor in the School of Neuroscience; Jennifer Davis, a professor in the Virginia-Maryland College of Veterinary Medicine; Inyoung Kim, a professor of statistics in the College of Science; and Richard Helm, professor of biochemistry.

The team of researchers will be studying the impact of a derivative of secoiridoid, a natural compound found in certain plants like olives, on blood sugar control and obesity, which are often precursors to Type 2 diabetes.



[Click or tap here to read the full story.](#)

The evolution of Nutrition and Dietetics Education is here and HNFE is ready!

Beginning January 1, 2024, the Commission on Dietetic Registration (CDR) is changing the minimum degree requirement for eligibility to take the national registration examination for dietitians from a bachelor's to a graduate degree. What does this mean for HNFE alumni, students and future registered dietitian nutritionists (RDNs), and how has the department responded?



HNFE Alumni who are already RDNs:

If you have already earned the RDN credential or eligibility to sit for the CDR RDN exam before 2024, you do not need to do anything differently. Your credential remains the same and you do not need to earn a graduate degree to remain an RDN. However, if you are interested in continuing your education, please reach out to our nutrition and dietetics faculty to discuss your options.

HNFE Alumni who are interested in becoming a RDN but have not yet achieved eligibility:

Completing a dietetics supervised practice program and a graduate degree are now both required for individuals pursuing the RD credential. These programs may be combined, connected, partnerships or completed independently. Look for Accreditation Council for Education in Nutrition and Dietetics (ACEND) accredited supervised practice programs, such as the two HNFE programs highlighted below.

HNFE Undergraduate Students and Future RDNs:

HNFE undergraduate students interested in becoming an RDN should complete our new Nutrition and Dietetics major. This new major, formerly called the "DIET option", is an ACEND accredited Didactic Program in Dietetics (DPD) that prepares students for ACEND accredited supervised practice programs. Students in the DPD major with an overall GPA of 3.4 or greater are eligible to apply to the accelerated pathway of HNFE's Master of Science in Nutrition and Dietetics (MSND) in their junior year. HNFE students in the Exercise and Health Sciences major are eligible to apply to the MSND program through the traditional pathway.

How has HNFE responded to the CDR Graduate Degree requirements for RDNs?

HNFE now has two ACEND accredited supervised practice programs to prepare students to become RDNs:

The Internship Program in Nutrition and Dietetics (IP) continues its 28-year legacy, with over 458 graduates and remains an innovative ACEND accredited supervised practice program. The IP accepts applicants who have completed a DPD and already possess a graduate degree or who have a plan to do so. The IP has formed a partnership with the Virginia Tech Online Master of Science in Agricultural and Life Sciences (OMALS), Applied Nutrition and Physical Activity concentration, to provide a flexible option for interns to achieve the RDN credential exam eligibility.

The Master of Science in Nutrition and Dietetics (MSND) program was established as an ACEND Graduate Program (GP) by HNFE in 2019, and was one of the first such programs in the world. With a look to the future, the department began strategizing for expected changes to dietetics education in 2015. We implemented a faculty work group to assess needs and plan for the future. HNFE faculty voted to start the degree program in HNFE to meet the newly established ACEND GP standards through seamless integration of graduate coursework and supervised practice rotations. The MSND, which accepted its first cohort in 2019, is now in its 5th year and has since graduated three full cohorts for a total of 43 program graduates.

Learn more about the changing requirements to the RDN credential by [clicking or tapping here to be redirected to the Commission on Dietetic Registration website](#).

Click or tap on any of the buttons below to explore these websites for more information.

[ACEND Website](#)

[MSND Program Website](#)

[Internship Program Website](#)

[OMALS Program Website](#)

New HNFE Undergraduate Majors

We have launched two brand new majors for our undergraduate students this past summer. As alumni of our department, you majored in “Human Nutrition, Foods, and Exercise” (or maybe even one of the earlier versions of our majors!). Options and concentrations have evolved over the decades and we are excited to announce an elevation to two new majors. Starting summer 2023, students will earn a Bachelor of Science in Human Nutrition, Foods, and Exercise with a major in Exercise and Health Sciences (EAHS) or Nutrition and Dietetics (NAD). These are science-focused degrees where students explore interdisciplinary content in human health, with a focus on nutrition, exercise, and physical activity. Students choose to major in Exercise and Health Sciences or Nutrition and Dietetics and will take career specific courses in those majors.

Exercise and Health Sciences (EAHS)



The Exercise and Health Sciences (EAHS) major provides a holistic understanding of human health through courses and experiences in natural and applied sciences.

EAHS is a flexible major that prepares students for a variety of careers in medicine, health, and wellness. Students find the major meets most admission requirements for graduate programs in health professions such as physical therapy, physician assistant, and dentistry, among others.

This flexible major opens doors to a variety of career paths in fitness, wellness, community health, medicine, and the health professions. Many EAHS students pursue continued education in the health professions including physical therapy, physician assistant, nursing, medicine (allopathic and osteopathic), athletic training, dentistry, pharmacy, chiropractic, veterinary medicine, and more.

Some roles of HNFE alumni includes medical device sales, paramedic, hospital administration, wellness director, account managers, sport scientist, research specialist, and hospital credentialing specialist, among others.

Nutrition and Dietetics (NAD)



The Nutrition and Dietetics (NAD) major is an accredited Didactic Program in Dietetics (DPD).

NAD is an Accreditation Council for Education in Nutrition and Dietetics (ACEND) accredited major that prepares students to pursue the Registered Dietitian Nutritionist (RDN) credential. The curriculum provides the education and learning experiences needed to be successful in the profession of nutrition and dietetics and meets admission requirements for most RDN graduate programs.

This ACEND accredited major opens doors for a variety of career paths in clinical and community nutrition, research, industry, and wellness. Alumni are competitive applicants for graduate and supervised practice programs in dietetics and report success in these educational pathways to becoming a Registered Dietitian Nutritionist.

Some RDN roles of HNFE alumni include clinical dietitian, collegiate and professional sports dietitian, program manager in community nutrition and public schools, and faculty in dietetics programs. The alumni one-year pass rate on the RDN exam consistently ranges from 90% to 100%.

Click or tap one of the buttons below to explore each major or visit our undergraduate program page on our website.

[Learn more about the EAHS major](#)

[Visit our Undergraduate Program page](#)

[Learn more about the NAD major](#)