CONTENTS

2  |  WELCOME
3–4 | MS CPD ON A MISSION
5   | FACULTY SPOTLIGHT
5–7 | FACULTY NEWS & RESEARCH
8   | ALUMNI SPOTLIGHT
9–10| STUDENT SPOTLIGHT
It has been five years since the Department of Nutrition and Exercise Physiology joined the College of Medicine and five years since we launched NutrEx to remain in touch with our valued alumni. Thank you for being a part of our journey.

This year, we celebrate the five-year milestone and being back in person! Although the pandemic is not completely over, we have adapted and made good progress on several of our department goals despite the difficulties over the past several years.

Our faculty continue to obtain extramural funding, present and publish impactful scientific findings, and engage in a variety of teaching, mentoring, and service activities. We welcomed a new faculty member this academic year, Catherine Jarrett, PhD, RDN, who you’ll learn more about on page 5.

Our students and faculty continue to make exceptional contributions to our program, land-grant university mission, and communities—and you’ll see several of them highlighted in the pages ahead. In our Alumni Spotlight, we sat down for a Q&A with BS NEP graduate and current Instruction & Classroom Support Technician Nick Dunn to learn more about his journey. In our Student Spotlight, you’ll meet Thomas Gooding, MEd, ATC, CSCS, a doctoral student in the first cohort of our new graduate research program, who is driving new research in exercise science. And you’ll hear from April Davis, MPH, RDN, CSO, CNSC, clinical associate professor and director of our Master of Sciences Coordinated Program in Dietetics, Nutrition and Exercise Physiology (MS CPD), who highlights some recent changes to the program.

It’s an exciting time in the department and we are eager to continue our growth in educational opportunities and research exploration. We look forward to keeping in touch as the new year unfolds.

Cheers!

Glen E. Duncan, PhD, RCEP
Professor and Chair
Nutrition and Exercise Physiology
In the spirit of “new treks” in the department, the Master of Science Coordinated Program in Dietetics, Nutrition and Exercise Physiology (MS CPD) has taken major strides over the past year to evolve our admissions process, implement new accreditation standards, and enhance student support efforts.

In partnership with the College of Medicine’s Office of Admissions, Student Affairs and Alumni Engagement, we worked to intensively review and redesign the admissions process toward a holistic approach. Designed to decrease barriers and provide transparency to all potential applicants considering the MS CPD as a professional pathway, the changes to the admissions process include clearly guiding applicants on the website, using evidence-based metrics to determine applicant factors and attributes to be scored, and a stepwise application review in which applicant names are blinded and objective benchmarks are used to score applicants’ statement of purpose, letters of recommendation, and resume.

In fall 2022, the Accreditation Council for Education in Nutrition and Dietetics (ACEND) released new standards for dietetic education. While many programs across the nation have struggled with the added clinical skills competencies, our program was well versed to take on these competencies and rapidly adapt our curriculum to meet the new standards.

For instance, students have the opportunity to perform routine health screen assessments including blood pressure measurements and blood glucose testing at the MS CPD ON A MISSION

by April D Davis, MS CPD Director
NEP Health and Fitness Clinic. Additionally, simulation labs embedded into the first semester of medical nutrition therapy use the college’s Virtual Clinical Center and provide students with practical experiences in placing feeding tubes on manikins, conducting nutrition-focused physical exams, and delivering diabetes education and management with standardized patients.

The new standards also emphasize cultural humility, self-reflection, diversity, equity, and inclusion in dietetics practice, along with environmental sustainability and food systems. The program had already recognized this need and took steps in 2021 to enhance this learning within the community nutrition and food service management courses. We enthusiastically revamped and boosted student learning objectives, assessments, and outcomes to meet these new competencies, which will be made even more prominent in future years with the addition of a stand-alone, two-credit didactic course in food service management.

Social gatherings and regularly scheduled check-ins from the MS CPD director, faculty, and graduate coordinator have enhanced student support and sharing opportunities. For example, MS CPD students led a lunch-and-learn in April 2022, hosting the military’s highest-ranking dietitian who spoke about niche practice areas such as military dietetics while the group enjoyed homemade quinoa lentil chili.

Cumulatively, the efforts toward admissions, accreditation standards, and student support have improved student and graduates outcomes, as evidenced by a 100% pass rate on the graduate exit exam this past year, a 100% first-time pass rate on the national credentialing exam since January 2022, and a 100% student retention rate from 2020–2022.
NEP faculty continued to make great strides in evolving and improving our programs, and local and national organizations frequently sought them for their expertise on how nutrition and exercise impact our lives.

Lisa Heneghen, MPH, RDN, CSO, CNSC, became Director of the Nutrition Thread of Medical Education and provided a continuing education session titled “Challenging Nutrition Opportunities and Unique Solutions Among Patients with Cancer” to the Greater Spokane Dietetic Association in October 2022.

Ofer Amram, PhD, and Pablo Monsivais, PhD, MPH, led methadone treatment research that informed policy at the federal level. During the pandemic, several restrictions on access to methadone treatments were loosened, providing an opportunity for a natural experiment to assess whether these changes would negatively impact the health of addicts seeking treatment. Their lab was the first to assess how loosened restrictions impacted treatment outcomes including treatment adherence, overdose, and emergency department admission. One of the publications showed that changes in the delivery of care during the pandemic did not affect treatment outcomes. This paper was cited 21 times and covered by several national news outlets including NBC News. It was also discussed by a member of the United States House of Representatives, Donald Norcross (D, NJ), who is putting forward a bill to improve access to addiction treatment. Moreover, in March 2022, the U.S. federal government extended the policy related to the loosening of restrictions to access

Catherine Jarrett, PhD, RDN, joined the Department of Nutrition and Exercise Physiology as an assistant professor in August 2022. She holds a master’s degree in nutrition and a doctorate in physical activity, nutrition, and wellness from Arizona State University. An Arizona native, she began her career in nutrition and exercise physiology at ASU and worked clinically as a dietitian at the Mayo Clinic.

Following her doctoral degree, she worked as a postdoctoral research fellow at the Veterans Affairs Geriatric Research Education and Clinical Center and the University of Utah Division of Geriatrics. Her fellowship training focused on clinical human vascular health with an emphasis on peripheral and cerebral blood flow and vascular function.

Her research explores exercise and nutrition interactions with vascular health in aging and disease. Future WSU research projects will focus on vascular health outcomes using non-invasive measurement techniques and incorporating exercise and/or dietary interventions.
methadone that was implemented during the COVID-19 pandemic. In the released statement, the policy writers cited the paper as evidence that the exemption did not negatively impact treatment outcomes and may have led to some improvements in treatment outcomes since implementation.

Pablo Monsivais, PhD, MPH, was awarded a new three-year grant from the National Institute of Diabetes and Digestive and Kidney Diseases to study how people shop and access food in the community and how food access impacts nutrition and health. The project involves collaboration with Ofer Amram and other colleagues at WSU and Oregon State University. Research began in the fall of 2022.

Monsivais also published the following articles:

- Fast Food and Out-of-Home Food Environments. CEL Evans, AK Taher, C Rycroft, P Monsivais. Transforming Food Environments, 115-126
- Diversity of protein food sources, protein adequacy and amino acid profiles in Indonesia diets: Socio-Cultural Research in Protein Transition (SCRIPT) H Khusun, P Monsivais, R Anggraini, J Februhranty, E Mognard, Y Alem, . . . Journal of Nutritional Science 11, e84
- Animal and Plant Protein Food Sources in Indonesia Differ Across Socio-Demographic Groups: Socio-Cultural Research in Protein Transition in Indonesia and Malaysia. H Khusun, J Februhranty, R Anggraini, E Mognard, Y Alem, MI Noor, . . . Frontiers in nutrition, 57
- Independent and combined associations between fast-food outlet exposure and genetic risk for obesity: a population-based, cross-sectional study in the UK. T Burgoine, P Monsivais, SJ Sharp, NG Forouhi, NJ Wareham. BMC medicine 19 (1), 1-9
- How supportive is the global food supply of food-based dietary guidelines? A descriptive time series analysis of food supply alignment from 1961 to 2013. CC Astbury, E Aguirre, K Cullerton, P Monsivais, TL Penney. SSM-population health 15, 100866

Patrick Solverson, PhD, completed a pilot clinical trial with elderberry juice, which ran from July 2021 to August 2022. The manuscript is being drafted and will be submitted to Current Developments in Nutrition.

In addition, he completed a 12-week rodent feeding study in collaboration with Ted Chauvin, PhD, to test elderberry juice anthocyanins against diet-induced rodent obesity by itself or combined with continuous access to an exercise wheel. He is now launching a USDA-funded follow-up clinical trial with elderberry juice in collaboration with Franck Carbonero, PhD, to test similar outcomes on fat oxidation and insulin sensitivity, but in combination with controlled feeding and additional testing on the fecal microbiome.
Solverson also published the following articles:


Glen Duncan, PhD, RCEP, was awarded a grant totaling more than $5 million for genetically informed studies of social connectedness and health. The research began in 2022 and will continue through spring 2027. In addition, he participated in a group presentation entitled “Use of deep learning and Google Street View imagery to examine relationships between residential streetscapes and physical activity” at the International Society of Behavioral Nutrition and Physical Activity (ISBNPA) Annual Conference in Phoenix, Arizona, in May 2022.

Duncan also published the following articles:

Duncan GE, Hurvitz PM, Moudon AV, Avery AR, Tsang S. *Measurement of neighborhood-based physical activity bouts*, Health Place 2021; 70:102595. PMCID: PMC8328921

Boakye K, Amram O, Schuna J, Duncan GE, Hystad P. *GPS-based built environment characteristics associated with adult physical activity*, Health Place 2021; 70:102602. PMCID: PMCC8328940


Avery AR, Tsang S, Seto EYW, Duncan GE. *Differences in stress and anxiety among women with and without children in the household during the early months of the COVID-19 pandemic*, Front Public Health 2021; 9:688462. PMCID: PMC8440851


Tsang S, Avery AR, Duncan GE. *Do married and/or cohabiting individuals fare better during the COVID-19 pandemic? Satisfaction with life and depression among adult twins in the United States*, Psychol Health Med 2022 Feb 10; Online ahead of print.
WHAT SPARKED YOUR INTEREST IN STUDYING NUTRITION AND EXERCISE PHYSIOLOGY?
I participated in pole vaulting during high school, and I had the opportunity to attend a skills camp at the University of Washington during the summer before my senior year. While at the camp, one of the activities was to meet the support staff for the student athletes at UW, which included the team nutritionist. Listening to her speak about the effect of nutrition on athletic performance piqued my interest and planted the seed for my future area of study.

WHY DID YOU CHOOSE THE WSU BS NEP?
One of the first college classes I took was an entry-level nutrition course. I found this course to be fascinating and decided to take all the nutrition courses offered. I decided to declare my major as Nutrition Sciences, in which the nutrition faculty served as advisors. When I spoke with my advisor and told her of my interests in both nutrition and exercise, she informed me of a WSU program that combined the two. Naturally, it sounded like a perfect fit for my interests.

WERE YOU FROM WASHINGTON OR DID YOU MOVE TO THE STATE TO ATTEND WSU?
I grew up in Marysville, Wash., and lived there until I moved to Spokane to attend the NEP program. It was a bit of a shock moving from the west side of the state to the east, but I grew to love Spokane and really enjoy living here.

WHAT WAS YOUR PROFESSIONAL EMPLOYMENT PATH FOLLOWING GRADUATION?
I graduated on August 8, 2016, and my first day of work in the NEP program was August 15, 2016. I was incredibly fortunate to be able to start working so soon after graduation. It has been my only job after graduation, and I celebrated six years with the NEP program this year.

HOW DO YOU USE YOUR EXPERTISE IN BOTH NUTRITION AND EXERCISE PHYSIOLOGY TO WORK WITH CLIENTS OR PATIENTS, OR TO BETTER YOUR OWN WELLNESS?
While I do not have clients or patients, I use my skills to help teach the next generation of NEP students. I help in most NEP lab courses and work directly with students, showing them how to use equipment and proper testing protocols. In my personal life, I use the knowledge I gained from the program to better myself and continue to try and lead a healthy life.

CAN YOU SHARE A FAVORITE MEMORY FROM YOUR TWO YEARS IN THE BS NEP PROGRAM?
My favorite memory of the program would have to be meeting my wife, Shannon. We celebrated five years of marriage this past May, and our son was born in April 2018.
PhD Student Exploring Progression to Overtraining

In 2019, the PhD program welcomed its first class of students.

Three years later, inaugural class member Thomas Gooding, MEd, ATC, CSCS, is working on research in exercise physiology that could potentially impact communities worldwide.

Gooding’s academic journey began at Northern Kentucky University, where he received his bachelor’s degree in athletic training. He went on to earn his master’s in athletic training at the University of Virginia in 2015 while serving as a personal and athletic trainer for young, professional, and Olympic athletes.

“Since I was an undergrad, I knew I wanted to pursue my PhD, but wasn’t sure what I wanted to focus my studies on,” said Gooding. “While working professionally, I discovered a love for exercise physiology.”

Gooding was drawn to the new NEP PhD program for several reasons, particularly the program’s complementary focus on exercise physiology alongside nutrition. “I loved that the program seemed to have a strong foundation in nutrition and exercise physiology,” said Gooding.

He also saw an advantage in being a part of the inaugural class.

“I felt the newly formed program would help direct my studies and research pursuits,” said Gooding.

“I hope my research will help professionals prescribing physical activity to have a better idea of what we can monitor from a training-recovery perspective, allowing them to provide better exercise prescription.”

— Thomas Gooding, MEd, ATC, CSCS
In his first semester in the program, Gooding identified an interest in exploring the impacts of overtraining. Overtraining occurs when an individual’s training load exceeds their recovery, and the body no longer grows stronger but instead begins to break down. He witnessed athletes and individuals push their bodies to the limits during his time practicing sports medicine.

Working with Associate Professor Hans Haverkamp, PhD, Gooding hopes to help uncover the biological mechanisms that may lead someone to either a positive training adaptation or training maladaptation.

If they can gain a new understanding of the progression to overtraining, the research has the potential to impact athletes, recreational or professional, worldwide.

Gooding recently gained national support from The American College of Sports Medicine (ACSM) Foundation and was awarded the 2022 Doctoral Student Research grant to fund his dissertation. In addition, he was awarded the ACSM Northwest Student Research Award Program.

“I hope my research will help professionals prescribing physical activity to have a better idea of what we can monitor from a training-recovery perspective, allowing them to provide better exercise prescription,” said Gooding.

“I am a firm believer in the idea that ‘it takes a village.’ I realize how fortunate I am to receive support from the village around me. Thank you for your generosity and for being part of my village.”

— Jennifer Westfall
NEP student

Please consider a gift to the Nutrition and Exercise Physiology Excellence Fund by visiting medicine.wsu.edu/give.
<table>
<thead>
<tr>
<th>Serving Size</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Servings Per University</td>
<td>1</td>
</tr>
</tbody>
</table>

## Mission
The Department of Nutrition and Exercise Physiology seeks to promote the health of individuals and communities through research, teaching, and service activities in human nutrition and exercise physiology, and the application of these sciences in academic, clinical, public health, and industry settings.

## Contact Us
509-358-7811    nep@wsu.edu    medicine.wsu.edu

## Make a Gift
Support NEP with an end-of-year gift. Donations to the Excellence Fund support student scholarships and financial aid, student travel to professional conferences, new equipment, and faculty recruitment and retention. To donate, click [here](medicine.wsu.edu/give), visit medicine.wsu.edu/give, or contact our advancement office at 509-358-7616 or nancy.fike@wsu.edu.

## GET YOUR NEP GEAR
WANT TO SHOW YOUR NEP PRIDE?
Get your gear at our new officially licensed online store (estoresbyzome.com/wsu_medicine.php), including t-shirts, tank tops, sweatshirts, sweatpants, and outerwear.

Produced by Zome Design, a Spokane Valley-based company, items come in a range of colors and sizes, are made on demand, and sent directly to your home.

<table>
<thead>
<tr>
<th>GIFT CERTIFICATES are also available</th>
<th>100%</th>
</tr>
</thead>
</table>

Elson S. Floyd College of Medicine
412 E. Spokane Falls Blvd
Spokane, WA 99202-2131