Welcome to the Department of Nutrition and Exercise Physiology’s first alumni newsletter. We are delighted to tell you about all of the exciting activities underway in the department. Our mission is 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. We motivate students to become health care leaders serving individuals and entire communities. Grounded in a science-based curriculum, the program prepares students through rigorous academics, research, and clinical practice. In these pages you will learn about our new graduate, research-based academic programs. You will be introduced to new faculty members who will help ramp up our research activities. And, you will get a sense of the many excellent faculty, staff, and students in our department and how they are making a difference in the various settings in which they are working. Great things are ahead for NEP, so stay tuned.

Cheers!

Glen E. Duncan, PhD, RCEP
Professor and Chair
Nutrition and Exercise Physiology
The Department of Nutrition and Exercise Physiology (NEP) will welcome students into two new graduate programs in fall 2019. The Master of Science (MS) and the Doctorate of Philosophy (PhD) degree tracks focus on diet and physical activity in clinical, community, and population settings. These two new research-intensive programs complement the long-running MS Coordinated Program in Dietetics and the Bachelor of Science in NEP. The creation of these new graduate programs is motivated by a clear public health challenge: most Americans have poor dietary habits and live sedentary lifestyles, increasing their risk of heart disease, Type 2 diabetes and cancer. An unhealthy diet and insufficient physical activity are more pronounced in rural locations and in underserved populations. The MS and PhD programs will have important and direct impacts on many communities in eastern Washington, where rates of obesity and chronic disease are higher than state averages. Tackling these public health challenges will require action at multiple levels, which will be informed by scientific evidence generated by faculty and students in the department.

Students in the MS and PhD programs will complete advanced coursework in human nutrition, exercise physiology, community and population health principles, epidemiology, and biostatistics. They will also take a series of electives both within and outside the department as appropriate to their academic and research interests.

With the recent appointment of several tenure-track faculty, the NEP research portfolio is expanding to include novel research programs including exercise and pulmonary function in asthmatic patients, eating behaviors, appetite and weight control, social inequalities, and neighborhood environments and health. NEP faculty will guide and mentor students in the new graduate programs, helping them to acquire the skills, expertise, and resources necessary to pursue their own independent research projects.

The department has long-standing relationships with clinical and community partners and has recently expanded to form a partnership with the Spokane Regional Health District, providing students with the opportunity to gain first-hand experience in research and clinical practice, as well as policies relevant to promoting the public’s health. Our new NEP graduate programs will provide pathways for students to gain the training needed to become research-driven change-makers in academia, government agencies, industry, and non-profit organizations.
ALUMNI SPOTLIGHT

Alesya Oleynik is a 2010 graduate of the BS NEP CPD working as a Registered Dietitian Officer with the U.S. Public Health Service (USPHS).

The role is new for Alesya, who was nominated and appointed to the position in April 2018 by the Surgeon General’s office. Her day-to-day responsibilities are with the Food and Drug Administration as a Human and Animal Food Investigator where she ensures the safety and security of the nation’s food supply system by regulating manufacturing, marketing and distribution of consumable human and animal foods. In addition to these responsibilities, she also deploys during humanitarian aid efforts, such as with FEMA during the hurricane season, to provide clinical dietary expertise to people in need.

Prior to her USPHS appointment, Alesya worked in the Anchorage, Alaska, area as an outpatient dietitian with Southcentral Foundation, an Indian Health Service organization, and as a clinical dietician in a rural community hospital.
ALUMNI NEWS

**Callie Roseland**, MS CPD, was awarded one of 10 Gatorade Sports Nutrition Program Fellowships in fall 2018.

**Heather Gerrish**, MS CPD, passed her RD exam, became a certified Exercise Physiologist, and started her PhD program at the University of Alabama in fall 2018.

**Ellen Arguinchona**, MS CPD, became a certified Exercise Physiologist.

**Maria-Ximena Hedrick**, MS CPD, became a certified Exercise Physiologist.

**Brajee Green**, BS NEP, was awarded the Chancellor’s Award for Leadership and Engagement as an Outstanding Outreach Student in 2018.

**Sean Davies**, MS CPD, was accepted into a Doctorate of PT program in Portland, Oregon.

**Katy Lane**, MS CPD, was hired at Sea Mar Community Health Clinic in western Washington.
FACULTY SPOTLIGHT

**Ofer Amram**, MSc PhD, (pictured left) is an Assistant Professor and director of the new Community Health and Spatial Epidemiology (CHaSE) lab on the WSU Spokane campus. Researchers in the CHaSE lab use advanced geospatial and statistical methodologies and data visualization to investigate how neighborhood and population characteristics impact disease occurrence, health care access, and health outcomes.

Dr. Amram completed a joint PhD from Simon Fraser University, Vancouver, BC, Canada (Geography Department) and Ben Gurion University, Beer Sheva, Israel (Faculty of Health Sciences). As a spatial epidemiologist, he has focused on the use of geographical information systems and on evidence-based decision making. In his work he relies heavily on cartography and visualization of collected data. More specifically, he has conducted in-depth studies of the connection between human health and the social and natural environments. This has led him to analyze factors like air and water quality, physical and social characteristics of our communities (cities, towns, rural areas), and resources available to those communities.

The primary aim of researchers at the CHaSE lab is to better understand how these factors shape our health while paying particular attention to the population of rural areas. To date, most research on environments and health has focused on urban areas, but rural areas, where populations suffer disproportionately from chronic diseases and other adverse health outcomes, face their own unique challenges. Notably, the majority of eastern Washington’s 19 counties are designated as being either medically-underserved or containing significant medically-underserved populations.

The goal of CHaSE lab is to help close the gap in health disparities within eastern Washington by better understanding the social and environmental factors that shape the health of this region’s population.
Hans Haverkamp, PhD, has a master's degree and doctorate in exercise science, both with an emphasis in exercise physiology. Dr. Haverkamp joined the NEP faculty as an Associate Professor in August 2018 and is a whole-body exercise physiologist with particular expertise in the respiratory system responses to exercise in health and asthma. His primary research interest is devoted to the determinants of airway function during and after exercise in adults with asthma. Current projects are investigating how lung mechanical behavior—lung volumes and breathing rate—affects airway function during and after aerobic exercise (i.e., exercise-induced asthma) in the asthmatic. These studies will add important new knowledge to our understanding of the complicated determinants of lung function during exercise in asthma. Future studies will integrate other determinants involved in the control of exercise airway function in asthma, such as neural factors and biological mediators released from airway cells.

Martine Perrigue, PhD, RDN, CD, joined the NEP faculty as an Assistant Professor in August 2018. Martine completed her MS, PhD, and dietetics training through the University of Washington Nutritional Sciences Program in Seattle. Dr. Perrigue’s areas of interests include: appetite and ingestive behavior, socioeconomic status and diet, and eating frequency and health-related outcomes. She has conducted several human feeding trials investigating the satiating effects of different nutrients and effects of higher vs. lower eating frequency on appetite, food intake, and disease-related biomarkers. At WSU, she will continue to conduct human nutrition research with major focus on the complex relationship between eating frequency, diet composition, appetite, and health outcomes. In addition to experimental research, Dr. Perrigue has worked on epidemiological studies examining relationships between income, food cost, and diet quality, and has published research on the relationship between meal frequency and colorectal cancer.

Irana Hawkins, PhD, MPH, RDN, joined the NEP faculty as a Clinical Associate Professor in October 2018. Dr. Hawkins is a dietitian-educator with more than 20 years of experience in dietetics and public health that includes improving health outcomes as well as the delivery of care. Her research focuses on: 1) reducing impact on the natural environment by way of food choices and zero waste practices; 2) understanding the use of plant-based diets in dietetics and healthcare practice; and 3) fostering interprofessional collaboration to create outcomes that benefit the public good. Dr. Hawkins edited the book Promoting Biodiversity in Food Systems (CRC Press). She is a Native Plant Steward and a Master Recycler/Composter that continuously looks for ways to support the living beings and living systems of the natural environment.

Dr. Hawkins will play a critical role in expanding the clinical training of MS CPD students to western Washington. Beginning spring semester 2019, she will train a portion of dietetic students at Providence Everett Medical Center (PEMC) in Everett, Wash., a few short blocks from the WSU Everett campus. NEP will be placing students at PEMC year-round.
Christine Reid is a graduate student in the NEP program. Throughout her studies and experiences, she has acquired a passion for working with diabetic patients, specifically children. This year she was selected to serve as a snowboarding coach for the Riding On Insulin (ROI) camp. Where she will supervise and teach snowboarding to Type 1 diabetic children.

ROI was originally founded by pro snowboarder Sean Busby in order to give back to the kids that inspired him to keep riding after he was diagnosed with Type 1 diabetes in early adulthood. ROI is an amazing experience that not only gives kids a chance to have fun on the slopes, but more importantly, a chance to be surrounded by a community that understands and appreciates what they go through on a daily basis.

Originally from South Carolina, Christine moved to Washington a year ago and fell in love with the sport of snowboarding. Her friends joke that if Christine wasn’t in class or studying, she was probably somewhere on the mountain. Living in the great Northwest has challenged Christine to seek new heights both on and off the mountain. When she was given the opportunity to volunteer for ROI, she couldn’t think of anything more perfect to align with her passion.

Diabetes is often called, “the disease of compromise” because patients must constantly make decisions based on treatment requirements. Snow and other action sports can be hard for Type 1 diabetics and their parents because managing this disease on the mountain can be challenging and unpredictable. When Christine is at camp with the kids she’s not only amazed at their strength, but their resilience in the face of this obstacle. ROI is a unique chance to step out of their disease and onto the mountain and to leave behind fear and judgment. She looks forward to the opportunity to provide this experience to as many kids as possible.

To learn more about ROI, visit ridingoninsulin.org.
STUDENT NEWS

NEP STUDENTS VOLUNTEER AT CAMP STIX
Camp STIX is a week-long summer camp for kids who have Type 1 diabetes. Nearly two dozen students from the WSU Spokane campus volunteered for the camp this year including Jeremy Jackson, a current MS CPD student.

Jackson was diagnosed with Type 1 diabetes when he was 15 and has a passion for working with diabetic patients. As a camp volunteer, Jackson was the director of specialty diets. He was only able to attend camp himself for one summer as a teenager, but noticed his friends that were able to attend multiple years were better at self-care. Jackson explained, “It’s kind of why I chose to dive into this. I see the social support these kids get and it helps them take ownership of their disease care. That’s where I think the power of this is.”

To learn more about Camp Stix, visit campstix.org.

MS CPD STUDENTS PARTICIPATE IN INTERPROFESSIONAL STUDENT TRAINING PROGRAM
Interprofessional education (IPE) allows students to engage with other health professions to enhance team performance and forge interdisciplinary alliances. Over the past two years, approximately 40 MS CPD students participated in the Screening, Brief Intervention, and Referral to Treatment (SBIRT) research study, alongside nursing, pharmacy, medicine, physician assistant, social work, and occupational therapy students. This IPE experience incorporated SBIRT training, in-person student role-plays, and a standardized patient interactive session for optimal learning and collaboration.

Following the IPE training, the MS CPD students were able to:
(1) Recognize SBIRT as a valuable tool for identifying substance use and providing a brief point-of-care intervention;
(2) Choose effective communication tools and techniques to facilitate discussions and interactions that enhance team function;
(3) Compare their unique role in SBIRT counseling with other professional students within the interdisciplinary team;
(4) Communicate roles and responsibilities clearly to patients, families, community members, and other professionals;
(5) Forge interdependent relationships with other professions within and outside of the health system to improve care and advance learning, specifically as it relates to patient-centered and population-focused problem solving.
NEP UPDATES

NEP KITCHEN RENOVATION
NEP has greatly expanded its footprint in the Health Education and Research Building on the WSU Spokane campus to accommodate research and faculty/staff/student office space. Over the past two years, the department has added a studio for group exercise classes and a conditioning room with new aerobic resistance training equipment.

NEP has also expanded its Exercise Physiology laboratories with separate 900 sq ft spaces dedicated to teaching and research, each with more equipment including new metabolic carts, integrated ECG/treadmill and electronically braked cycle ergometers, and a Bod Pod for body composition testing.

The department recently completed renovating the kitchen space in the Health Sciences Building, converting the teaching space to a state-of-the-art research and demonstration kitchen with new stainless-steel food preparation carts, stainless-steel countertops, and new appliances. Visit medicine.wsu.edu/nep-facilities for more details about these resources.

FITNESS TESTING FOR SPOKANE CHIEFS
NEP recently hosted the Spokane Chiefs junior ice hockey team that plays in the Western Hockey League. Faculty performed VO2max and body composition testing on 23 athletes to get a profile of their fitness levels before starting the competitive season. The tests were fun and a great way for faculty and students to connect with the greater Spokane community.
WSU NEP Facts

Serving Size............................1
Servings Per University............1

Amount Per Serving

Mission..................................1
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.

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