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Nutritional Sciences

Scott Going Wins Administrator of the Year Award!

Dr. Scott Going, Department Head for Nutritional Sciences (NSC), was selected for the Administrator of the Year Award at the 2016 College of Agriculture and Life Sciences (CALs) Spring Faculty/Staff Meeting held in March. This award is presented to Administrators in recognition of their outstanding achievements and contributions to their units, College and the University through their leadership, efficiency, outstanding service and special efforts in the area of diversity. While serving as Dept. Head, Dr. Going has maintained an active research program studying the effect of physical activity on body composition and calcium metabolism. He is recognized as a Fellow in the American Academy of Kinesiology and Physical Education, has written training grants with other faculty to facilitate growth in the NSC Graduate Program, and continues to actively mentor both students and junior faculty. Nutritional Sciences has a history of exceptional leaders. Both of the two preceding Department Heads (Drs. Houtkooper and Winzerling) were also recipients of this award. Congratulations Dr. Going!



Outstanding Nutritional Sciences Graduating Seniors!



Photo by David Scott Allen

Ariane Guthrie is the NSC Spring 2016 Outstanding Graduating Senior and nominee for the CALs Outstanding Graduating Senior. Throughout her time at the UA, Ariane has volunteered with the Garden Kitchen, participated in research in the lab of Dr. Jessie Martinez (pictured left), worked as a counselor at Yuma PharmCamp, and served as president of the UA Pharmacy Club. Ariane also served in the Dean's Leadership 50 for the College of Agriculture and Life Sciences. In August, Ariane will begin Pharmacy school here at the U of A. Congratulations Ariane!



Alex Franklin (pictured right) is the 2016 nominee for the AzAND DPD Outstanding Student award. Throughout her time at the UA, Alex has volunteered with the UA Nutrition Network, participated in research in the lab of Dr. Kay Hongu, and worked as a Clinical Diet Technician at Banner University Medical Center. Alex is also President and Co-Founder of the Future Health Leaders Alliance and has volunteered abroad in Panama with Global Medical Brigades. In August, Alex will begin a dietetic internship at Brigham and Women's Hospital in Boston, MA. Congratulations Alex!

NSC Professors Publish Book on Mediterranean Diet



NSC Professors Dr. Donato Romagnolo and Dr. Ornella Selmin published a book this spring entitled *Mediterranean Diet: Dietary Guidelines and Impact on Health and Disease*. Fresh off the heels of a successful conference (Research Frontiers in Nutritional Sciences) that focused on the Mediterranean diet, Romagnolo and Selmin recruited top academics and researchers in the field to contribute current research on the health benefits of a Mediterranean diet pattern. For further information, contact Dr. Romagnolo at donato@email.arizona.edu or visit <http://www.springer.com/us/book/9783319279671>





Research

Research Highlight: Dr. Jennifer Bea



Dr. Jennifer W. Bea is the Assistant Director of The Body Composition Research Laboratory (BCRL), alongside Director Dr. Scott Going, Head of the Department of Nutritional Sciences. Dr. Bea is an Assistant Professor of Medicine, an Assistant Research Scientist in Nutritional Sciences, and a member of the University of Arizona Cancer Center, Cancer Prevention and Control Program.

Dr. Bea's recent work on BMI, body composition, and mortality is getting attention. She and her colleagues from the Women's Health Initiative, including several UA faculty members, were able to show that BMI does not adequately capture mortality risk among postmenopausal women. In addition, both BMI and body composition relationships to mortality differ by age group. For 50-59 and 60-69 year olds, at least class II obesity defined by BMI ($\geq 35 \text{ kg/m}^2$) was required for a significant increase in mortality; overweight and obese class I categories were not significantly associated with all-cause mortality in these groups. By age 70, BMI was no longer significantly associated with increased risk of mortality. Meanwhile, 80% of the 50-59 year old population were at 2-fold increased risk for mortality if total body fat (%TBF) by DXA was used to determine risk for mortality. These results occurred despite broad-ranging BMIs (16.4–69.1 kg/m^2) for every quintile of %TBF. Further, the highest lean body mass (%LBM, $\geq 58.8\%$), a proxy for muscle mass, decreased risk of death by nearly 60% in 50-59 year olds. Interestingly, the body fat and lean mass relationships seemed to begin reversing after age 60. By age 70, excess fat was protective while higher lean body mass significantly increased risk of mortality. These data suggest that body composition should be evaluated by age group in the clinical setting to more robustly assess mortality risk among postmenopausal women and to better target lifestyle advice.

New Evaluation Project Assesses SNAP-Ed Obesity Prevention Programs

The UA Nutrition Network (UANN) Evaluation Team recently separated from SNAP-Ed (Supplemental Nutrition Assistance Program Education) in the Cooperative Extension to initiate a new project with the Arizona Department of Health Services. Funded by a \$433,150 contract with the Bureau of Nutrition and Physical Activity, the evaluation team will serve as the external evaluator for all contractors funded by Arizona's SNAP-Ed program, including the UANN and seven county health departments. SNAP-Ed's primary goal is to prevent obesity and reduce health disparities among lower income Americans using interventions that include PSE (policy, systems and environment) changes, direct education and social marketing. To measure the effectiveness of SNAP-Ed in Arizona, the evaluation team will assess statewide programs in the areas of Food Systems, Active Living, School Health, and Early Childhood. The goal is to understand how SNAP-Ed's newly integrated multi-component program delivery model can address short and longer term indicators of overweight and obesity.



A targeted research project this year will assess educational efforts with adults using the *MyPlate for My Family* curriculum. To date, 185 participants have been enrolled across eight counties to assess changes in nutrition and physical activity behaviors related to participation in the curriculum. In the focus area of school health, the team has evaluated 49 Local Wellness Policies for Arizona schools and districts in 12 counties using the WellSAT 2.0 scoring criteria to assess the strength and comprehensiveness of written policies to enhance nutrition and physical activity in school environments.

The evaluation team includes Theresa LeGros, Dr. Kathryn Orzech, Vern Hartz, Bete Jones and is led by Principal Investigator Dr. Laurel Jacobs. They recently presented to the Association of State Nutrition Network Administrators, at the American Evaluation Association conference, and served as co-authors on the USDA's forthcoming *Interpretive Guide* for the National SNAP-Ed Evaluation Framework. For further information, contact Dr. Laurel Jacobs at: jacobs1@email.arizona.edu.



Graduate Program

Congratulations!



Laura Hopkins will defend her thesis entitled, "Evaluating the public health impact of a community-based family-focused diabetes prevention program using RE-AIM" and plans to graduate with her MS degree this August. Laura was mentored by Dr. Melanie Hingle. After graduation, Laura will seek full-time work

in nutrition.

Rachel Smith will defend her thesis entitled, "Optimizing nutrition education in the special supplemental nutrition program for women, infants, and children (WIC)" and plans to graduate with her MS degree in August. Rachel was mentored by Dr. Sean Limesand. After graduation, Rachel hopes to work as a nutrition educator with underserved populations while preparing to apply to medical school.



Meghan Strom defended her thesis entitled, "Sustainable diets: Understanding nutrition educators' perceptions" and will graduate with her MS degree this May. Meghan was mentored by Dr. Cynthia Thomson. After graduation Meghan will complete a distance dietetic internship through

the University of Houston while staying local in Tucson, and begin work as a Program Coordinator for the SMART study with Dr. Thaddeus Price in the College of Nursing.

Chris Ussery defended his thesis entitled, "Impact of family focused diabetes intervention on metabolic risk factors in 9-12 year-old youth" and will graduate with his MS degree this May. Chris was mentored by Dr. Melanie Hingle. After graduation Chris will begin work as a Program Coordinator for the TREAT program with Dr. Karen Herbst in the College of Medicine.



Alumni Update: Veronica Mullins

Veronica (Ronnie) Mullins MS, RD, CSCS is a Registered Dietitian and a Certified Strength and Conditioning Specialist. She completed the St. Mary's Internship program and graduated from the University of Arizona with a Master's Degree in Nutritional Sciences with a focus on exercise physiology in 1999. Her work as a graduate student included the Bone Estrogen Strength Training (BEST) study and the Combined Event Athlete Development (CEAD) project with USA Track and Field, where she worked with both male and female heptathletes and jumpers.



After graduating in 1999, Ronnie began working in private practice counseling athletes, working with eating disorder clients, and analyzing menus for local group home facilities. She has worked as a sports nutrition specialist at Canyon Ranch Resort Spa in Tucson, Arizona, providing individual counseling and group presentations to active individuals and athletes. She worked in the National Football League as the Team Nutritionist for the Arizona Cardinals planning meals and providing nutrition counseling for players and staff. Ronnie has written many publications and conducted workshops on nutrition and body composition related to athletes and active individuals, including co-authoring *Winning Sports Nutrition 2nd Edition*, a continuing education course for sports and nutrition professionals in 2013. She continues to work and write on this subject.

In 2015 Ronnie was hired as an Assistant Professor of Practice in the Nutritional Sciences Department at the University of Arizona where she is developing and teaching sports nutrition classes. In addition to sports nutrition, Ronnie is passionate about food justice and environmental nutrition issues. She is currently developing new undergraduate classes in sustainability and food systems and plans to expand her work in this area.

Ronnie spends her free time with her husband and four kids hiking, biking, rock climbing, swimming, and more. She loves to be outside and enjoy the beautiful Tucson climate whenever possible. Her family raises chickens for eggs, rescues pot belly pigs, and provides a home for many fish, cats, and a dog.



Undergraduates

Student Highlight: Chioma Atanmo



Since transferring back to the UA, I have been actively involved in the Tucson community. My passion for nutrition and health has led me to great opportunities that encourage me to make an impact. I found out quickly that engaging with people while creating authentic relationships is at the core of helping people.

I acquired an ambassador position for KIND Healthy Snacks to represent the University. My job is to create a healthier, and kind environment on campus, and to initiate random acts of kindness that encourage positive lifestyle changes. Our motto is to live kind every day by being kind to the world, your body, and your taste buds. By partnering with organizations that align with this philosophy, I have been able to work with Naturopaths without Borders, Campus Recreation, Campus Health, Body Smart, Residence Life, Transfer Student Center, Department of Nutritional Sciences, Campus Pantry and the Disability Resource Center among many others.

In addition to my work with KIND, I have been working with a semi-pro men's soccer team for the past four years called FC Tucson. Starting off as an intern, I fell in love with the energy, fast paced environment and the unpredictability that the world of sports brings. I quickly took on more responsibilities and have had a unique opportunity to help FC Tucson host Major League Soccer (MLS) for their preseason training. We have had the majority of the league come to Tucson, and I have met incredible people. I have been able to create meal plans, fitness plans, provide nutrition education, assist in player recovery with the athletic trainers and strength and conditioning coaches, as well as run MLS live streamed matches, and recruit and manage new interns.

Over the summer, I will continue my work with FC Tucson as the Nutritionist and Head Fitness Coach. I will also be working in the Sports Nutrition Department at Notre Dame during the month of August and assisting the newly opened Tucson Concussion Center to help create nutrition guidelines for their concussed patients.

Contributed by NSC Major Chioma Atanmo:
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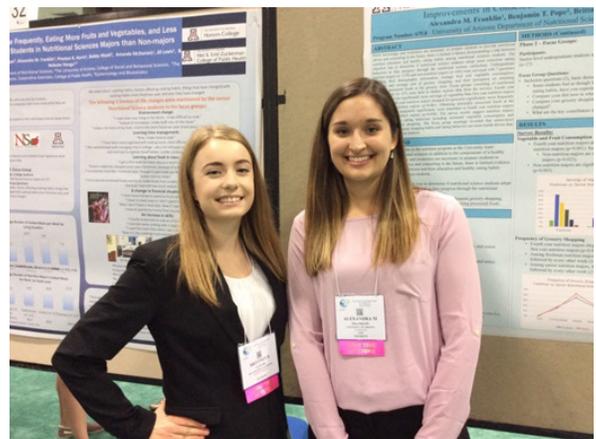
NSC at Experimental Biology



In April, two Nutritional Sciences Seniors, Alex Franklin and Brittney Taylor,

were invited to present their research at the Experimental Biology conference in San Diego, CA. Experimental Biology is an annual meeting comprised of over 14,000 scientists and exhibitors representing six sponsoring societies and multiple guest societies. General fields of study include anatomy, biochemistry and molecular biology, investigative pathology, nutrition, pharmacology, and physiology. Franklin and Taylor participated in the section entitled 'Innovation in Undergraduate and Graduate Nutrition Education'.

Both students were mentored by Dr. Kay Hongu; their poster titles appear below. It is quite an honor to be invited to present as an undergraduate student. Congratulations Alex and Brittney!



Cooking Meals More Frequently, Eating More Fruits and Vegetables, and Less Fast-Foods among Students in Nutritional Sciences Majors than Non-majors.

B.R. Taylor, B.T. Pope, A.M. Franklin, P.R. Harris, B. Wyatt, N. Hongu. Univ. of Arizona

Improvements in Conscious Eating Behaviors in Undergraduate Nutritional Science Students.

A.M. Franklin, B.T. Pope, B.R. Taylor, P.R. Harris, B. Wyatt, N. Hongu. Univ. of Arizona



Outreach

UANN Promotes Walking and Biking to School



A family walks to Laguna Elementary on National Walk to School Day (October 9th)

According to the National Center for Safe Routes to School, in 1969 48% of all school-aged students walked or biked to school, compared to only 13% in 2009. Walking and biking to school promotes neighborhood safety, supports a cleaner environment, and encourages children to have fun while building healthy life-long habits.

As part of a comprehensive obesity-prevention approach reaching Supplemental Nutrition Assistance Program Education (SNAP-Ed) eligible schools, the Pima County University of Arizona Nutrition Network (UANN) is assessing the walkability, bikeability, and safety of 10 low-income schools utilizing the Active School Neighborhood Checklist (ASNC).

The ASNC was developed through a partnership between the Arizona Department of Health Services and the Arizona Department of Transportation's Safe Routes to School Program. The ASNC analyzes built-environmental factors (i.e., speed limit, vehicular traffic, sidewalks, cross-walks) to generate a score of the walkability, bikeability and safety of the

school and surrounding area (half mile radius for elementary schools and mile radius for middle and high schools). The results can be used to help communities, city planning officials, and district administrators identify barriers to walking and biking and create solutions to overcome these barriers.

Gabriela R. Barillas-Longoria, UANN intern and College of Public Health graduate student, is implementing the project by visiting each school and making observations of the built-environment data points, taking photographs, and interviewing crossing guards. Gabriela will incorporate her findings into a comprehensive report to be released in June. The report will be used to engage city and district planning officials about immediate and long-term changes that could improve the walking and biking environment of the schools. The UANN will host events at selected schools where parents, teachers, students, administrators, and community members will be invited to learn about the findings through an interactive "walk-about" experience.

The Co-Principal Investigator for the UANN Pima County campus unit is Dr. Vanessa A. Farrell and the Principal Investigator of the UANN is Dr. Scottie Misner.

Contributed by UANN Program Coordinator Lauren McCullough, MPH: laurenmccullough@email.arizona.edu

The Science of Taste at the Tucson Festival of Books

The Nutritional Sciences Club and Student Nutrition Advising Center collaborated with Cooperative Extension and MycoCats to expose community members to *The Science of Taste* at the Tucson Festival of Books-Science City 2016. At this faculty and student run booth, we provided opportunities for festival goers to learn about and experience sweet, salty, sour, bitter and umami taste sensations. A proposed 6th primary taste, oleogustus, which is associated with the oxidation of fatty acids, was also discussed.

Participants sampled a variety of items that were generously donated, including dried plums (Sunsweet), fresh lemons and limes (Sprouts), and Walnuts (CA Walnut Commission). Fresh oyster mushrooms were also provided, courtesy of the MycoCats. The aroma of sautéed garlic and fungi lured people from all directions to experience the complex taste, as the MycoCats displayed their fungi growing techniques at the booth alongside. In addition to covering the 6 tastes, opportunities were also provided for people to explore how

genetics influences their taste perception. PTC strip tasting allowed people to gauge their sensitivity to bitter tastes and refreshing cilantro-lime infused water, supplied by Cooperative Extension, allowed people to learn whether they carry a gene that results in cilantro tasting what many describe as "soapy". The younger visitors had fun with prizes provided by the Dairy Council of Arizona, and got to try their luck creating the infused water recipe using Cooperative Extension's bicycle powered blender.



Contributed by NSC Assistant Professor of Practice Ashlee Linares-Gaffer: alinares@email.arizona.edu

Extension

Promoting Healthy Meals Through Cultural Traditions



Ady Melendez, a student intern in the Latin American Research Summer Program at the UA, along with Cooperative Extension Agents and undergraduate students from the departments of Nutritional Sciences and Physiology recently completed work on a Mexican mole sauces project. Mole (pronounced *moh-lay*) describes a number of different sauces that vary in composition depending on area of origin. Mole sauces begin with chili, can have more than 20 ingredients, and often include chocolate. The project team had not made mole from scratch before, in contrast to the views of their ancestors who believed making mole at home was an integral part of Mexican heritage and culture.

The project team learned that mole sauce prepared in the home is an important part of Mexican family traditions.

The full article about mole sauces and how this popular Mexican food can promote healthy meal cooking is available online at: <https://extension.arizona.edu/sites/extension.arizona.edu/files/pubs/az1699-2016%20.pdf>

Contributed by Dr. Kay Hongu: hongu@email.arizona.edu



Living Well with HIV through EFNEP

Michelle Rico is a Nutrition Educator for the Extension Food and Nutrition Education Program (EFNEP), working with low-income families in the Tucson area. Over the past few months Michelle has been delivering classes at the Tucson Interfaith HIV/AIDS Network to participants who are living with HIV. Scott Blades, the Executive Director of the organization, wrote to compliment Michelle on the work she does. He said that Michelle's classes are very popular, mainly because Michelle makes it fun, but also because her classes assist people to eat better, live healthier, and stretch their limited food budget with additional resources. Mr. Blades writes, "You have a great educator in Michelle, and we are very grateful that you partner with us to share the important information with our clients living with HIV. Michelle is a great ambassador of nutrition and healthy eating, as well as being a great ambassador of your program."

Dr. Scottie Misner is the Principal Investigator of the EFNEP grant and Dr. Dan McDonald, Associate Extension Agent, supervises the program in Pima County.

Contributed by Dr. Dan McDonald: mcdonald@cals.arizona.edu

Support Nutritional Sciences

Supporting the Department of Nutritional Sciences has never been easier! All contributions are made to the UA Foundation, a 501(c)3 organization. Through this foundation supporters may choose how their gift is applied. All gifts are tax deductible. Visit <http://nutrition.cals.arizona.edu/donate> for direct links to the UA Foundation for secure, online giving.

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