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# Nutritional Sciences

## Congratulations to Our Outstanding Faculty & Staff!

The College of Agriculture & Life Sciences recognizes the Outstanding Faculty and Staff in the Department of Nutritional Sciences!

*Researcher of the Year Award*  
**Dr. Scott Going,**  
NSC Interim Department Head

*Outstanding Staff in Research Award*  
**Michele Graves,**  
Program Coordinator

*Outstanding Staff Award*  
**Darren Shevchuk,**  
Business Manager, Sr.

*CALS Faculty Teaching Award*  
**Dr. Jennifer Ricketts,**  
Assistant Professor of Practice



## Two Nutritional Sciences Faculty Members Receive Bart Cardon Teaching Award



The Bart Cardon Sustained Excellence in Teaching Award was created to recognize and honor unusual dedication and outstanding performance by members of the teaching faculty at the University.

Congratulations to **Dr. Randy Burd** and **Dr. Jennifer Ricketts** who were recognized at the College of Agriculture and Life Sciences Honor's Convocation as new Bart Cardon Scholars. Dr. Ricketts currently teaches *NSC308 Nutrition and Metabolism* and *NSC170C1 Nutrition, Food and You*. Dr. Burd developed a series of Nutrigenomics related courses, including *NSC375 Diet, Genes and Disease* and *NSC475/575 Nutrigenomics*.



## EVENTS/ANNOUNCEMENTS

*"Childhood Obesity Prevention: From Mobile Health (mHealth) to Metabolic Health."*

Join us for a special seminar on Wednesday, January 30th, 12-12:50pm in Drachman Hall, Rm. 120. **Dr. Donna Spruijt-Metz** of the USC Keck School of Medicine will present her research.

This will be the first in a series of seminar speakers hosted by the University of Arizona "Collaboratory," an interdisciplinary research group comprised of scientists and clinicians from the Department of Nutritional Sciences, the Canyon Ranch Center for Prevention and Health Promotion the Department of Family & Community Medicine, and the UA Diabetes Center.

## Nutritional Sciences in the News

**Dr. Melanie Hingle's** work on text messaging and healthy lifestyle promotion to teens was chosen by the editors and publisher of the *Journal of Nutrition Education and Behavior* as the focus of a national press release and an upcoming podcast and webinar. Her publication, "Texting for Health: The Use of Participatory Methods to Develop Healthy Lifestyle Messages for Teens," will appear in the January/February 2013 issue of the Journal.

# Research

## How To Get Involved in Nutritional Sciences Research: A Guide for Undergraduates

**Contributed by: Karen Michelle Rico,  
Undergraduate Student in Nutritional Sciences**

When I began to search for volunteer opportunities, internships or research positions, I was clueless of where to begin or who to ask for information. Through the Nutritional Sciences Club's activities, I was able to meet other students involved in research or internships and ask their advice. At the same time, I also searched for volunteer or internship positions in the community. My initial volunteer position was not directly related to nutrition. However, after I gained some experience, I was able to get a job collecting diet recalls and processed food and physical activity questionnaires. In the immediate future, I will continue working and I am looking forward to completing a research project in Dr. Randy Burd's lab on the impact of a low pH in melanoma cells.

Getting involved in research is a process that requires determination and persistence. You can start by volunteering

in the community or in a research lab. Being successful is about building experiences and these positions can be found by being a proactive student. The activities that I do outside of the classroom are what motivate me to continue my education and to obtain a doctoral degree. Whether I am in a lab or organizing an event for the Nutrition Club, I can apply what I have learned (both in and out of class) to these activities. Research and service in the Department of Nutritional Sciences are more than something to add on my resume, but also doing what I love while helping improve the quality of life for others.

*Karen Rico is current President of the Nutritional Sciences Club, and an undergraduate majoring in Nutritional Science (nutrition and dietetics options). You can reach her at [krico@email.arizona.edu](mailto:krico@email.arizona.edu). To learn more about current opportunities for undergraduates in nutrition research, check out the Nutritional Sciences Department's Facebook page or listserv postings, or the Department website to identify active labs or research projects.*

## Graduate Student Receives Research Award



**Emily Goldberg** was one of two CALS students to receive the ABOR Doctoral Research Grant to support dissertation research. Emily currently works in the lab of NSC Joint Appointed Faculty Dr. Janko Nikolich-Zugich. Her research focuses on how manipulating CD8 T cell metabolism can alter the immune response to infection. Congratulations Emily!

## Faculty Publications

Please visit <http://www.cals.arizona.edu/nutrition/content/new-publications> to view a list of recent faculty publications in peer reviewed journals.

## Teske Lab Reports Link Between Sleep and Obesity

In a recent report accepted for publication in November and to be released in an upcoming issue of *Obesity*, **Dr. Jennifer Teske** and colleagues report for the first time on a rodent model that mirrors human obesity linked to sleep deprivation and excessive caloric intake. The study found that rodents exposed to environmental noise gained more body weight and ate more calories compared to rodents that slept undisturbed.

The average amount of sleep has declined by 1-1.5 hours nightly while body weight has increased across the US, hence this study underscores efforts to acquire the recommended 7-8 hours of uninterrupted sleep daily for adults. Moreover, this study suggests that proper sleep, in addition to diet and exercise, is necessary for preventing excessive weight gain and provides an animal model to develop pharmacologic aids to improve sleep in humans. New behavioral and pharmacologic strategies are needed to combat the obesity epidemic given our ever busy and fast-paced lifestyle.

For more information contact Dr. Jennifer Teske:  
[teskeja@email.arizona.edu](mailto:teskeja@email.arizona.edu)

# Education

## Congratulations to our December 2012 Graduate Student Graduates!



**Martha Mosqueda** defended her thesis, entitled "i-Challenge!, a Nutrition and Physical Activity Intervention Using Smart Phones in a Physical Education Class at a Junior High School" in December to earn her MS degree. Martha was mentored by Dr. Nobuko (Kay) Hongu. Martha will enroll in the Iowa State University Nationwide Dietetic Internship

in January 2012, which will take place throughout the Tucson area and involve practical experiences in community, clinical, and foodservice nutrition. Congratulations Martha!

**Hui-Hua (Gina) Chang** defended her dissertation entitled, "Discovery and Characterization of Novel Inhibitors of the PGE2 Pathway" in December to earn her PhD degree. Gina was mentored by Dr. Emmanuelle Meuillet. Gina will be moving on to a post-doc fellowship at UCLA in Dr. Guido Eibl's lab where she will study the role of inflammation in the association between obesity and pancreatic cancer. Congratulations Gina!



## The Department of Nutritional Sciences Launches New Study Abroad Course in 2013



The 4-week, hands-on *Mediterranean Diet and Health* course takes place over the summer in Tucson, Arizona and Verona, Italy; a beautiful and historic northern Italian city. Students will have the opportunity to learn about food preparation, agriculture and cultural activities characteristic to the Mediterranean region. Excursions include visits to olive oil, pasta, and Parmesan cheese processing plants.

In 2010, UNESCO identified the Mediterranean dietary pattern as an Intangible Cultural Heritage, thus recognizing this lifestyle component as a contribution to the world.



Objectives of this Summer Program include:

1. Provide scientific information about the health benefits of foods associated with the Mediterranean diet for the prevention of chronic diseases;
2. Explore the influence of bioactive compounds present in Mediterranean foods on metabolic pathways & conditions;
3. Explore the food industry in Italy and Mediterranean area;
4. Prepare food through hands-on experiences led by Italian chefs & food experts;
5. Experience the cultural diversity of Italy and influence of Mediterranean culture.

For more information, contact Dr. Donato Romagnolo, Professor of Nutritional Sciences at [donato@email.arizona.edu](mailto:donato@email.arizona.edu) or visit the UA Study Abroad site: <http://global.arizona.edu/study-abroad/program/mediterranean-diet-and-health>

## NSC Students Impact Community Youth through Undergraduate Internships

Undergraduate students working with the Arizona Nutrition Network (<http://uanutritionnetwork.org>) make a difference in the lives of youngsters. These students help teachers and afterschool programs focus on eating healthy foods and increasing physical activity. During the Fall 2012 semester, NSC students taught in after school programs, developed lesson plans to help teachers use nutrition to teach math or science, and held booths at school and community fairs to teach kids how to eat and be active to get healthy and stay healthy.

*Interested in learning more or getting involved while earning course credit? Please contact the NSC faculty advisor for this experience:  
Dr. Patricia Sparks  
[psparks@email.arizona.edu](mailto:psparks@email.arizona.edu)*



# Outreach

## The Garden Kitchen: A New Cooperative Extension Outreach Partner and Training Opportunity for Nutritional Sciences Faculty, Staff and Students!

Interested in learning about (and contributing to) nutrition education and health promotion in South Tucson?

The Garden Kitchen, 2205 S. 4<sup>th</sup> Ave., is an interactive, hands on environment for children and adults to learn the importance of good nutrition and physical activity. The Garden Kitchen provides nutrition education programs directly to families using a unique, “seed-to-table” approach, teaching participants how to grow, buy, properly store, and cook nutritious, low-cost food through food demonstrations, cooking lessons and gardening education. Energy balance and its role in obesity prevention is an important component of the Garden Kitchen approach.

The Garden Kitchen contains a licensed kitchen space for Extension Nutrition Educators to prepare, cook and store foods used for nutrition education in the surrounding community and schools. In addition, the Garden Kitchen and its faculty and staff welcome undergraduate and graduate students who are interested in contributing to the mission of the Garden Kitchen while gaining real-world experience and skills in the garden and in the kitchen.

*Please contact Cheralyn Schmidt, Garden Kitchen Program Coordinator, 520-626-5161 or [goodfood@cals.arizona.edu](mailto:goodfood@cals.arizona.edu) for more information.*

## Introducing F.R.E.S.H.: The Nutritional Sciences Graduate Student Club

**Why F.R.E.S.H.?** No one can deny that graduate school is hard work. The Future Researchers Stimulating Healthy Lifestyles (F.R.E.S.H.) graduate student club is designed to help minimize the burden (and maximize the grad school experience) through peer mentorship, career advice, and the obligatory happy hours during which venting about your research project is totally acceptable.

**Who is F.R.E.S.H.?** We are nutritional science graduate students who serve as Teaching and Research Assistants across campus. As future leaders in nutrition and health research, our project topics are diverse, ranging from bench research to community interventions, collectively we work on improving our understanding of the roles of nutrition, physical activity and bioactive compounds in optimizing health and preventing and treating chronic disease.

country to showcase our novel, high-impact research. 3) Raising grant funds and holding philanthropic events to support nutrition-related causes.

### How can I support F.R.E.S.H.?

1) Provide career advice – Are you a scientist or health professional that focuses on nutrition? Then come share your wisdom with us. We are very interested in learning more about what types of careers and opportunities are open to trained professionals and future scientists. 2) Become the focus of a F.R.E.S.H. philanthropic event - Do you have a project or worthy cause you would like to discuss with F.R.E.S.H.? We may be able to help you raise money through our philanthropy activities. Come and meet with us! 3) Network and collaborate with us! Are you a graduate student, in any field of study, working toward improving health? If yes, join us! 4) Provide funding to support our research and education experiences, or in support of any topics that you feel passionate about – our research is the future of Nutritional Sciences!

*For more information, please email Danielle Vassallo, F.R.E.S.H. President, at [DMV@email.arizona.edu](mailto:DMV@email.arizona.edu)*



**What does F.R.E.S.H. do?** Recent F.R.E.S.H. activities include: 1) Volunteering at health fairs and helping to educate the public about nutrition, 2) Attending and presenting at scientific meetings all over the



# Invest in the Future

## Where Are They Now? Alumni Update

**Dr. Zeina Makhoul**, Nutritional Scientist at the SPOON Foundation, earned her PhD from the Department of Nutritional Sciences in May of 2007. When asked about her work since then, this is what she had to say:

“After leaving Tucson, I completed a four-year postdoctoral training at Fred Hutchinson Cancer Research Center (Seattle) where I led research studies on nutrition and HIV-associated malignancies in Uganda. In September 2011, I joined the Portland-based SPOON Foundation’s small but excellent team on their mission to improve the nutrition and feeding for orphaned, fostered and adopted children around the globe ([www.spoonfoundation.org](http://www.spoonfoundation.org)). Children living without permanent parental care are at heightened risk for malnutrition, putting their growth and development in great jeopardy. Yet, research on the nutrition status of orphans and foster children is sorely lacking and existing interventions generally target children with families. As SPOON’s Nutrition Scientist, my main role is to design and implement assessment tools investigating the nutrition and feeding needs of this vulnerable population and interventions addressing those needs. In 2012, my job with SPOON has taken me to China, Haiti, and India, where I visited

orphanages and conducted institution-based assessments. In 2013, I will go to Russia, Vietnam and Mexico to do the same. I am currently leading SPOON’s effort in creating a Nutrition Screening System to be piloted in Haiti and India and scaled-up to orphanages in Africa and Southeast Asia. In addition, I am guiding a new initiative to investigate nutrition and feeding needs among children in the US foster care. The children I have met so far touched my heart and I’m humbled by the opportunity to help so many of them with the knowledge and skills I have attained from my department at the UA.”



## Support Nutritional Sciences Through Charitable Giving

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 donors may choose how their gift is applied. All gifts are tax deductible. Visit <http://cals.arizona.edu/nutrition/content/donations> for direct links to the UA Foundation for secure, online giving. Below are some examples of results of charitable giving that are helping current Nutritional Sciences students to complete their studies.

- The Darrel E. Goll Graduate Fellowship for Nutritional Sciences provides monetary support to select graduate students in the Department of Nutritional Sciences. During the 2012-2013 school year, this award supported research in the areas of children, healthy eating and physical activity.
- The Paul and Gladys Klingenberg Endowment in Nutritional Sciences awards monetary support to Nutritional Sciences students with priority given to a student from any Native American Nation or of Hispanic ancestry. During the 2012-2013 school year, this Endowment was awarded to 3 undergraduate students to help with education related costs, including tuition and books.

## Contact Us!

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