

# NEWSLETTER

Spring 2010



## GREETING FROM THE DEPARTMENT HEAD

Hi Everyone,

This year the Department of Nutritional Sciences and the Nutritional Science Graduate Program graduated 86 students with bachelor's degrees, 5 with master's degrees and 2 with doctoral degrees. Your tax dollars and contributions made this possible. Why is this important and what benefits come from this commitment?

For the student, education means opportunity; the opportunity to compete for high paying jobs, the opportunity to acquire the skills and knowledge necessary to function well and to make good decisions in an increasingly complex world, and the opportunity not only to broaden one's mind, but hone one's thinking. For the local community, education means economic vitality. It is part of the equation that must exist between business and government, such that there is support for industrial development *and* the presence of an educated workforce to provide for those activities. From our graduates will come the discoveries, products and the framework that will provide for our food security, improved nutrition and health, and assure our position in a very competitive world.

Finally, and most importantly for our society, a high level of literacy is required to maintain our Republic. The word republic derives from the Latin for "a public affair." Ours is a government where the citizens choose the leaders and can have an impact on governance. For our Republic to prosper, our citizens need sufficient knowledge and skill to understand pertinent issues, to engage in making their views known by public discourse and in writing, and to vote.

No doubt, there are many more benefits from educating our citizens than I have mentioned here. Thus, I would like to this opportunity to personally say "thank you" to each of you. Thank you for your investment in our future.

Best wishes for a great summer,

## WELCOME

**Dr. Pelin Bilgic**, Visiting Scientist from Turkey working with Dr. Kay Hongu and the Stealth Health Project Team.



Department Head, Joy Winzerling welcomes Dr. Pelin Bilgic

**Amanda Andres**, Laboratory Coordinator for Dr. Patricia Sparks in the Food Studies and Food Management laboratories.

**Deborah Arnett**, Research Technician for Dr. Kirsten Limesand.

**Melissa Jahnek**, Instructional Specialist in outdoor education, physical activity and nutrition working with Jennifer Reeves.

**Cristine Konnecke**, Instructional Specialist, Senior with the Arizona Nutrition Network Team.

**Lorena Macias-Navarro**, Visiting Research Technician for Dr. Scott Going and the Stealth Health Project.

**Pritesh Patel and Darty Bhakta**, Undergraduates working with the Winzerling Laboratory.

**Lin Wei**, Accountant, working with Dr. Scottie Misner and the SNAP-Ed team.

## CONGRATULATIONS

**Dr. Emmanuelle Meuillet** was promoted to Associate Professor with Tenure.

## NEW GRANTS

Community Putting Prevention to Work.

**Scott Going (Co-Director)**

Funded by: U.S. Department of Health and Human Services

Inhibition of Novel Molecular Targets of Prostaglandin Formation for Anti-Tumor Activity.

**Emmanuelle Meuillet (PI)**

Funded by: National Institutes of Health

Epigenetic Programming of Breast Cancer and Nutrition Prevention.

**Donato Romagnolo (PI)**

Funded by: Department of Defense

Evaluation of Diindolylmethane (DIM) Supplementation to Modulate Tamoxifen Efficacy in Breast Cancer.

**Cynthia Thomson (PI)**

Funded by: National Institutes of Health

Supplemental Nutrition Assistance Program (SNAP-Ed).

**Scottie Misner (PI)**

Funded by: United States Department of Agriculture

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## PUBLICATIONS

### R. BURD ETAL.

Hormones and Synergy: Pathways and Mechanisms of Quercetin in Cancer Prevention and Management. (2010) *Nutrition Reviews*. (In Press).

### S. GOING ETAL.

A Comparison of Strength-Training, Self-Management and the Combination for Early Osteoarthritis of the Knee. (2010) *Arthritis Care & Research*, 62(1):45-53.

Progressive Resistance Training Improves Overall Physical Activity Levels in Patients With Early Osteoarthritis of the Knee: A Randomized Controlled Trial. (2010) *Physical Therapy*, 90(3) 356-366.

Relationship of Total Body Fat Mass to Weight-Bearing Bone Volumetric Density, Geometry & Strength in Young Girls. (2010) *Bone*, 46(4)977-984.

Correlates of Physical Activity in Black, Hispanic, & White Middle School Girls. (2010) *Journal of Physical Activity & Health*, 7:184-193.

### M. HINGLE ETAL.

Parental Involvement in Interventions to Improve Child Dietary Intake: A Systematic Review. (2010) *Preventative Medicine*. (Accepted).

### L. HOUTKOOPER ETAL.

Disordered Eating in Athletes. (2010) *Clinical Sports Nutrition*, 4<sup>th</sup> Ed. 171-190. (L. Burke & V. Deakin, Eds.) Australia: McGraw-Hill Co. Inc.

### K. LIMESAND ETAL.

IGF-1 Preserves Salivary Gland Function Following Fractionated Radiation. (2010) *International Journal of Radiation Oncology, Biology, Physics*. (Accepted).

### E. MEUILLET ETAL.

Molecular Pharmacology and Antitumor Activity of PH-427 a Novel AKT/PDK1 Pleckstrin Homology Domain Inhibitor. (2010) *Molecular Cancer Therapy*, 9(3):706-717.

Prostaglandin E2 Synthase and Cancer. (2010) A Comprehensive Invited Review, Special Issue in *Biochimie*, "Phospholipase A2 and Lipid Mediators". PMID: 20159031.

Recent Development of Anticancer Therapeutics Targeting the Akt Pathway. (2010) *Recent Patents on Anti-Cancer Drug Discovery*. (In Press).

### D. ROMAGNOLO ETAL.

Resveratrol Prevents Epigenetic Silencing of BRCA-1 by the Aromatic Hydrocarbon Receptor in Breast Cancer Cells. (2010) *Journal of Nutrition*. (Accepted).

Cancer Biology and Nutrigenomics. (2010) *Bioactive Compounds and Cancer*, Eds: D. Romagnolo & J. Milner, 1(2):25-44.

Aryl Hydrocarbon Receptor-Mediated Carcinogenesis and Modulation by Dietary Xenobiotic and Natural Ligands. (2010) *Bioactive Compounds and Cancer*, Eds: D. Romagnolo & J. Milner, 4(32):761-782.

### O. SELMIN ETAL.

Epigenetic Regulation of BRCA-1 by AhR Agonists and Preventative Effects of Resveratrol in Breast Cancer Cells. (2010) *Journal of Nutrition*. (Accepted).

Exposure to Low Dose Trichloroethylene Alters Heart Rate, Sheer Stress Gene Expression and Cardiac Function in the Developing Chick Heart. (2010) *Cardiovascular Toxicology*. (In Press).

Gene Expression Profiling in the Fetal Cardiac Tissue After Folate and Low Dose Trichloroethylene Exposure. (2010) *Birth Defects Res. A Clin. Mol. Teratol.*, 88(2):111-27.

### C. THOMSON ETAL.

Vitamin D Intake and Mammographic Density. (2010) *Menopause*. (Accepted).

Diet and Survival after Ovarian Cancer: Where Are We and What's Next? (2010) *JADA*, 110(3): 366-368.

Poor Physical Health Predicts Time to Additional Breast Cancer Events and Mortality in Breast Cancer Survivors. (2010) *Psycho-Oncology*. (Accepted).

Low to Moderate Alcohol Intake is Not Associated With Increased Mortality After Breast Cancer. (2010) *CEBP*, 19(3):681-688.

Medical Comorbidities Predict Mortality in Women With a History of Early Stage Breast Cancer. (2010) *Breast Cancer Resch Treat.*, (Epub Ahead of Print), DOI 10.1007/s10549-010-0732-3.

Intentional Weight Loss and Lymphohematopoietic Cancer Incidence. (2010) *Cancer Causes & Control*, 21(2): 223-236.

### M. WILHELM ETAL.

Preparing Graduate Students for Teaching: Expected and Unexpected Outcomes from Participation in a GK-12 Classroom Fellowship. (2010) *Journal of College Science Teaching*. (Accepted).

## AWARDS, NOTABLES, AND IN THE NEWS

Congratulations to **Sharon Hoelscher Day** and the "Bone Builders" program team who have been named Recipient of the Western Extension Director's Award of Excellence for 2010.

**Dr. Ornella Selmin** has been selected as a Panelist for the Integrated Risk Information System (IRIS), Toxicological Review of Trichloroethylene (TCE), US Environmental Protection Agency Science Advisory Board. The panel will provide external peer review of the scientific basis supporting the human health assessment of TCE.

Congratulations to **Dr. Dawn Geiser** who received an Association for Women Faculty Travel Grant to attend the Experimental Biology 2010 Meeting in Anaheim, California.

**Dr. Wanda Howell** was re-elected as Chair of the Faculty, 2010 through 2012.

**Dr. Kirsten Limesand** was featured in a UANews article titled "Nutritional Sciences Investigator Wins NIH Challenge Grant." The article describes Dr. Limesand's research which focuses on how to restore salivary gland function in cancer patients.

**Drs. Donato Romagnolo and Ornella Selmin** were featured in a UANews article titled "Study to Examine Whether Cancer Risk from in Utero Environmental Exposures Can be Reversed." This article discusses new research seeking answers about the role of diet in pregnancy to reduce the risk of breast cancer in daughters not yet born.

Congratulations to **Heather Ottenbacher** who received her Board Certification as a Specialist in Pediatric Nutrition.

Congratulations to the **Limesand Laboratory Team**, recipients of an award for the BIO5 What-Why Statement Contest.

## PRESENTATIONS, SEMINARS, AND CONFERENCES

### DR. BURD

Invited Presentation: "Potential for Thermal Enhancement by Quercetin Mediated Mechanisms Targeting p53 Antagonists in Human Melanoma Cells." Annual Meeting of the Society for Thermal Medicine, Clearwater, FL, April, 2010.

### DR. HONGU

Invited Presentation: "Impact of a Community-Based Walking Program on Fruit and Vegetable Consumption." Experimental Biology, Anaheim, CA, April, 2010.



Dr. Nobuko Hongu

Poster Presentations: "The (GPS) Global Positioning System Nutritional Drawing Courses: Promoting Physical Activity and Good Nutrition through Popular Technology", "Using Fitness Devices and GPS Technology in Measuring Energy Expenditure and Distance Walked Over Flat and Incline Surfaces", and "Effects of a Short-Term Group Fitness Intervention on Body Composition and Exercise Motivation in College Students." Experimental Biology, Anaheim, CA, April, 2010.

### DR. LIMESAND

Keynote Speaker: "Sensitivity of Salivary Glands to Radiation" at the American Association for Dental Research Conference, Washington, DC, March, 2010.

Invited Presentations: "Involvement of p53 Family Members in Radiation-Induced Salivary Gland Damage *In Vivo*." Cancer Biology and the Department of Radiation Oncology, University of Arizona, March, 2010, and Radiation Oncology Grand Rounds, University of California San Francisco, San Francisco, CA, April, 2010.

Invited Presentation: "Radiation-Induced Salivary Gland Damage: Insights into Prevention and Restoration." Orofacial Sciences Grand Rounds, University of California San Francisco, San Francisco, CA, April, 2010.

Poster Presentations: "Restoration of Radiation Therapy-Induced Salivary Gland Dysfunction in Mice by Post Therapy IGF1 Administration", "Binding of  $\Delta$ Np63 to Promoters of p53-Dependent Cell Cycle Arrest Genes Increases in Murine Parotids Glands Following Irradiation", and "IGF1 Mediates Preservation of Salivary Gland Function Which Does Not Affect Survival of Head and Neck Tumors." Experimental Biology, Anaheim, CA, April, 2010.

### DR. MEUILLET

Invited Presentation: "Targeting the Pleckstrin Homology Domain as a Novel Approach to Cancer Therapy." Sanofi Aventis, Oro Valley, AZ, February, 2010.

Invited Presentation: "Targeting the Pleckstrin Homology Domain as a Novel Approach to Cancer Therapy: An example for Akt." The Institute for Molecular and Cellular Pharmacology, Sophia Antipolis, France, March, 2010.

Poster Presentation: "Novel Aminothiazoles as Inhibitors of Microsomal Prostaglandin E2 Synthase-1 (mPGES-1)." Abstract 12874. American Chemical Soc. Meeting, San Francisco, CA, March, 2010.

Poster Presentations: "Novel Inhibitors of mPGES-1 Exhibit Anti-Tumor Activity in Colorectal and Lung Cancers" and "Targeting the PH Domains of TIAM-1 to Inhibit Breast Cancer Metastasis." Proceedings of the 101th Annual Meeting of the American Association for Cancer Research, Washington, DC, April, 2010.

### DR. MISNER

Conference: National Conference for State EFNEP Coordinators, Washington, DC, March, 2010.

Invited Presentation: "Intake of Calcium Rich Foods Among Early Adolescents." Arizona Nutrition Network, Phoenix, AZ, April, 2010.

An In-service for EFNEP and SNAP-Ed was held on campus for 65 faculty, staff and Nutrition Educators on March 24th. Extension Family Consumer and Health faculty participated in strategic planning March 25th.

### DRS. ROMAGNOLO AND SELMIN

Poster Presentation: "Abrogation of TCDD Induced Epigenetic Silencing of BRCA-1 by Resveratrol." Experimental Biology, Anaheim, CA, April, 2010.

### DR. THOMSON

Invited Presentation: "Glycemic Index/Load, Sweetened Beverage Intake and Risk for Breast Cancer Recurrence." Cancer Prevention and Control Seminar, Arizona Cancer Center, Tucson, AZ, February, 2010.

Invited Presentation: "Breast Cancer Recurrence: Role of Diet, Physical Activity and Body Weight." Canyon Ranch, Tucson, AZ, February, 2010.

Invited Presentation: "Nutrition & Cancer Risk." High Risk Symposium, Arizona Cancer Center, Tucson, AZ, February, 2010.

Conferences: Cherry Advisory Board & Washington State Fruit Commission Meeting, Lodi, CA, March, 2010; W2002 Meeting, Oklahoma City, OK, March, 2010; and NIDDK Reviews, Washington, DC, March, 2010.

Poster Presentations: "Weight Loss is Associated With Increased Serum 25(OH) Vitamin D in Overweight or Obese Women" and "Mediterranean Diet, Weight Control and Modulation of Inflammation among Lactating Women." Experimental Biology, Anaheim, CA, April, 2010.

### DRS. GEISER AND WINZERLING

Poster Presentations: "The Effect of Targeted Silencing of Ferritin in the Yellow Fever Mosquito, *Aedes aegypti*." Undergraduate Biology Research Program 21<sup>st</sup> Annual Conference, University of Arizona, January, 2010; University of Arizona, Honors College Spirit of Inquiry Expo, February, 2010; Biological, Engineering, and Chemical Undergraduate Research (BECUR) Conference, University of Arizona, February, 2010; and Experimental Biology, Anaheim, CA, April, 2010.

Poster Presentations: "Identification and Characterization of a Novel Ferritin Subunit from *Aedes aegypti*." Biological, Engineering, and Chemical Undergraduate Research (BECUR) Conference, University of Arizona, February, 2010; Experimental Biology, Anaheim, CA, April, 2010; and Chemistry and Biochemistry Senior Thesis Poster Session, University of Arizona, May, 2010.

Poster Presentation: "The Effect of Bacterial Challenge on Ferritin Regulation in *Aedes aegypti*." Experimental Biology, Anaheim, CA, April, 2010.

## DEPARTMENT SEMINARS - SPRING 2010

**Dr. Heddwen Brooks**, Associate Professor. University of Arizona, Department of Physiology. "Sex Differences in Renal Function and Diabetes; Using Systems Biology to Identify Novel Targets in Disease."

**Dr. Erik J. Henriksen**, Professor. University of Arizona, Department of Physiology. "Oxidative Stress and the Etiology of Insulin Resistance in Mammalian Skeletal Muscle."

**Dr. Terry Landowski**, Assistant Professor. University of Arizona, Department of Medicine, Arizona Cancer Center. "Life on the Edge: Apoptosis vs. Autophagy in Cancer Chemotherapy."

**Dr. Emmanuelle J. Meuillet**, Associate Professor. University of Arizona, Departments of Nutritional Sciences and Molecular and Cellular Biology, BIO5 and Arizona Cancer Center. "Towards the Development of a Chemo- and Nutri-Prevention of Colorectal and Pancreatic Cancers."

**Dr. Tauhid Rahman**, Associate Specialist. Agricultural-Resource Economics. "Socioeconomic Status, Neighborhood, Household Behavior, and Children's Health in the United States: Evidence from Children's Health Survey Data."

**Dr. Hussein Yassine**, Clinical Assistant V. University of Arizona, Department of Medicine. "Role of Proteomics in Diabetes."

## GRADUATE DEGREES AND AWARDS



### Doctors of Philosophy



**Erin Mendoza** has accepted a postdoctoral position at the Arizona Cancer Center. She will be studying hypoxia in lymphoma and investigating biomarkers of hypoxia, oxidative stress, and DNA repair to predict drug response.

**Kathleen Holton** is currently working as a Research Associate at Oregon Health and Science University in Portland, Oregon and is planning on writing a book on the Excitotoxin Elimination Diet she created.

### Masters of Science

**Oscar Perez** worked with Dr. Scott Going and will continue to pursue his education.

**Tracy Crane** will continue to work in diet and physical activity research at the University of Arizona.

**Shuang Huang** is currently working at the Department of Biostatistics here at the University of Arizona.

**Kerton Victory** will pursue a PhD in Environmental Health Sciences at the University of Arizona, Mel and Enid Zuckerman College of Public Health. His goal is to conduct research in an academic institution or in a government laboratory such as NIH or FDA.

**Andreas Valenzuela** is currently working as a Registered Dietitian at the Casa Grande Regional Medical Center in Casa Grande, Arizona.

### Awards

Congratulations to **Jessica Miller** who was accepted into the Nutrition and Cancer Prevention Research Practicum at the National Cancer Institute in Bethesda, Maryland on March 15–19, 2010. (Mentor: [Cynthia Thomson](#)).

Congratulations to **Geoffrey C. Mitchell** who received the 3rd place Oral Presentation Award at the University of Arizona Genetics Core Graduate Student Research Symposium. (Mentor: [Kirsten H. Limesand](#)).

## UPCOMING CONFERENCE

### SPORTS NUTRITION WORKSHOP



The 2010 Sports Nutrition Conference, "Fueling Fitness and Performance" will be October 29, 2010 at the BIO5 Institute. Local speakers, as well as Dr. Melinda Manore from Oregon State, and Adam Korzun, the RD and Chef from the US Olympic Training Center will speak.

For more information, contact Erin Nurss at:

[ebnurss@email.arizona.edu](mailto:ebnurss@email.arizona.edu).



## UNDERGRADUATE STUDENT NEWS

**Nasira Burkholder** was awarded the Arizona Dietetic Association Outstanding Dietetics Student Award, University of Arizona.

**Sabrina Dumas** was accepted into the Minority Access to Research Careers (MARC) program.

**Amy Frame** was awarded the Southern Arizona Dietetic Association Outstanding Dietetics Student Award.

**Gillean Osterday** was chosen as the Nutritional Sciences Outstanding Graduating Senior for May, 2010.

**Marni Mendelsohn** is one of several students that were chosen to receive the nationally competitive Benjamin A. Gilman International Scholarship. This scholarship gives students the opportunity to conduct research and study abroad during the spring and summer semesters of 2010. Marni is currently in Argentina.

**Jenna K. Larsen, Rebecca G. Reed, Rosalie R. Thornton and Martha I. Mosqueda** presented their research studies at the 19<sup>th</sup> Annual Statewide Arizona/NASA Space Grant Symposium, Kuiper Space Science Building, University of Arizona, on Saturday, April 17, 2010.

## ALUMNI UPDATE - SUSIE W. ROCKWAY, PH.D. CNS



Dr. Susie Rockway received a Bachelors degree in Biological Sciences from San Diego State University, and her M.S. and Ph.D. in Nutritional Science from the University of Arizona. Following her graduate work, she received an NIH Postdoctoral Fellowship that she completed at the University of Chicago, Department of Medicine.

Dr. Rockway has had an unusual career having worked for industry and academe. She began her career as the Vice President of Scientific Affairs with the National Dairy Council in Rosemont, Ill., where she managed the regulatory aspects of pending food regulations in Washington, and a portfolio of more than 50 grants. In 1993, Dr. Rockway left the National Dairy Council. After the birth of her third son, she consulted for a few years and then returned to Rush-Presbyterian St. Lukes Medical Center as an Assistant Professor in Clinical Nutrition. In this capacity, she taught and mentored graduate students and conducted research. In 2000, she was recruited into a position with PharmaNutrients, Inc., as Director of Research and Development and Scientific Affairs. During her time in the dietary supplements industry, she designed and managed basic and clinical research projects with global partners and traveled to Sweden, Belgium, Spain, Germany, England and Ireland. She also developed and formulated new products, managed legal aspects of intellectual property and worked with the press. When the company sold, Dr. Rockway resumed a position as an Assistant Professor of Clinical Nutrition with Rush University Medical Center. With six graduate students, she quickly received funding to run two clinical trials, giving her MS students a chance to run a human study. Her advice to students is a reflection of her own life, "Be smart, set your goals, work hard, and show me results!"

She truly loved her time working in both industry and academe, and continues to coordinate studies with academia. She has published scientific papers, abstracts and book chapters, and holds five patents. She was recruited to come back to Arizona in July of 2008, and assumed a position with Isagenix International in Chandler, Arizona, where she is currently the Director of Research and Nutritional Sciences.

Dr. Rockway has three sons. The oldest is a computer whiz working independently in Chicago for Bank of America's traders office. Her second son has finished his third year at the University of Illinois, Champagne-Urbana and will be going to graduate school. Her youngest son is 17 and finishing his junior year of high school in Chandler, Arizona, and is considering the University of Arizona for his future, too!

This newsletter is also available online at: <http://nutrition.arizona.edu>. If you would like to receive our newsletter via email, please contact Theresa Spicer at 621-7126 or email [tspicer@ag.arizona.edu](mailto:tspicer@ag.arizona.edu). The University of Arizona is an equal opportunity, affirmative action institution. The University does not discriminate on the basis of race, color, religion, sex, national origin, age, disability, veteran status, or sexual orientation in its programs and activities.