

NUTRITIONAL SCIENCES DEPARTMENT NEWSLETTER

College of Agriculture and Life Sciences
The University of Arizona



Fall 2007

GREETING FROM THE DEPARTMENT HEAD



Our Department had many exciting activities and achievements this fall semester. The second biennial Research Frontiers in Nutritional Sciences Conference was held on the University of Arizona

main campus October 22-23rd. This Conference focused on obesity, cancer, diabetes, and nutrigenomics. Conference participants included over 140 people from Arizona and several other states. Innovative research being conducted in our Department, other Departments at the University of Arizona, Arizona State University, and Universities throughout the country, at the National Institutes of Health, and in industry was showcased in the Conference faculty presentations and at the posters sessions. The Conference was led by a steering committee of faculty members from our Department including Dr. Burd, Dr. Going, Dr. Limesand, Dr. Romagnolo, Dr. Thomson, and Dr. Stump, from the College of Medicine who is also a Joint Appointed faculty member in our Department. Details of the Conference are included in this newsletter.

This fall there were 390 Nutritional Sciences undergraduate majors. The number of undergraduate students who are majoring in Nutritional Sciences has doubled over the last five years. This rapidly increasing student enrollment creates challenges and opportunities for our Department.

The Nutritional Sciences Graduate Program (NSGP) welcomed a new class of graduate students this fall. The NSGP has 7 Masters students and 17 Doctoral students. The NSGP received the honor of being ranked 6th in the nation in the 2007 Faculty Scholarly Productivity Index. In 2005, the NSGP was ranked 10th in the nation by this Index. The NSGP include faculty in our Department and 17 faculty members from the College of Medicine, College of Public Health, College of Science, and the Arizona Cancer Center who have Joint Faculty appointments in our Department.

The Departmental Cooperative Extension Outreach Programs are focusing on nutrition and physical activity education and research projects with children, adolescents and their families. These Programs promote healthy nutrition and physical activity practices aimed at helping people prevent chronic diseases including obesity, osteoporosis and cancer.

I am pleased to announce that Darren Shevchuk has joined our Departmental staff as Business Manager, Senior.

More Information on our Departmental faculty, staff, students and our Instruction, Research and Cooperative Extension Outreach Programs is available on our Departmental website at: <http://nutrition.arizona.edu/>.

For the past five years I have had the opportunity to be the Head of the Department of Nutritional Sciences. During this time our faculty, staff and students have made new discoveries, educated many people, launched students in careers and have helped improve the quality of lives of many people. This will be my last newsletter as Department Head, I have accepted a new position as an Associate Director of Cooperative Extension in the College of Agriculture and Life Sciences. I will be starting this new position in February, 2008. Dr. Winzerling will become the interim Department Head and a national search will be conducted to hire the next Department Head. This new leadership will foster continued excellence for all of the Departmental Programs.

Best wishes for a healthy, heartwarming holiday season and a prosperous new year.

Sincerely,

Linda Hunt-Koopman



NEW AND RENEWED GRANTS

DR. GOING

Exercise and Bone Development in Young Girls.
Principal Investigator: Scott Going
Funded by: National Institutes of Health

DR. MEUILLET

Novel Inhibitors of Akt Signaling in Pancreatic Cancer.
Principal Investigator: Emmanuelle Meuillet
Funded by: University of Texas MD Anderson Cancer Center

DR. MISNER

The Extension Food and Nutrition Education Program-USDA Smith-Lever Act Reauthorization.
Principal Investigator: Scottie Misner
Funded by: U.S. Department of Agriculture

The Food Stamp Nutrition Education Program.
Principal Investigator: Scottie Misner
Funded by: U.S. Department of Agriculture

DR. ROMAGNOLO

Epigenetics of Breast Cancer and Chromatin Remodeling of the BRCA-1 Gene.
Principal Investigator: Donato Romagnolo
Funded by: Arizona Biomedical Research Commission

Epigenetic Silencing of BRCA-1 and Protective Effects of Dietary Components.
Principal Investigator: Donato Romagnolo
Funded by: Susan G. Koman Foundation

DR. THOMSON

Food, Attitudes and Body Study (FAB).
Principal Investigator: Cynthia Thomson
Funded by: Jenny Craig/Nestle

Anemia and its Relationship with Sarcopenia, Physical Function and Mortality.
Principal Investigator: Zhao Chen
Co-Investigator: Cynthia Thomson
Funded by: National Institutes of Health

Efficacy of Vegetables to Reduce Oxidative Stress & Inflammation in Overweight Women: A Dose Response Study.
Principal Investigator: Cynthia Thomson
Funded by: U.S. Department of Agriculture

FACULTY PUBLICATIONS

DR. BURD

Wachsberger, P.R., **Burd, R.**, Cardi, C., Thakur, M., Daskalakis, C., Holash, J., Yancopoulos, G.D., and Dicker, A.P. *VEGF trap in combination with radiotherapy improves tumor control in u87 glioblastoma*. *Int. Journal Radiation Oncol Biol Phys*, 67(5):1526-37, 2007.

Thangasamy, T., Sivanandane, S., Lanza-Jacoby, S., Wachsberger, P.R., **Limesand, K.H.**, and **Burd, R.** *Quercetin selectively inhibits bioreduction and enhances apoptosis in melanoma cells that overexpress tyrosinase*. *Nutr Cancer*, 59(2):258-68, 2007.

Burd, R., and Wachsberger P.R. *Application of Radiotherapy and Chemotherapy Protocols to Pre-Clinical Tumor Models Current Protocols in Pharmacology*. John Wiley and Sons, Inc. 2007.

Book: Mendoza, E., **Burd, R.**, Wachsberger P.R., and Dicker, A.P. *Normalization of Tumor Vasculature and Improvement of Radiation Response by Antiangiogenic Agents*. *Cancer Drug Discovery and Development Antiangiogenic Agents in Cancer Therapy*. Humana Press Inc. In Press.

DR. HOUTKOOPER

Houtkooper, L., Abbot Maurer, J.M., and Nimmo, M. *Nutrition for throwers, jumpers and combined events athletes*. *Journal of Sports Sciences*, 25(2): 39-47, 2007.

Book: **Houtkooper, L.**, Abbot Maurer, J., and Mullins, V. *Winning Sports Nutrition*. DSW Fitness, Tucson, AZ, 2007.

DR. HOWELL

Book: Bloch, A., O'Sullivan Mailet, J., **Howell, W.H.**, and Winkler, M. (eds.) *Issues and choices in clinical nutrition practice*. Philadelphia: Lippincott Williams & Wilkins, 2007.

- O'Sullivan Mailet, J., and **Howell, W.H.** *Advanced level and specialty practice: How necessary or beneficial are they for practitioners?* pp. 44-57.
- **Howell, W.H.** *Nutrition and coronary artery disease*. pp. 308-318.

Earthman, C., Traughber, D., Dobratz, J., and **Howell, W.** *Bioimpedance spectroscopy for clinical assessment of fluid distribution and body cell mass*. *Nutr Clin Pract*, 22:389-405, 2007.

Higgins, K.J., Reid, P.M., **Going, S.B.**, and **Howell, W.H.** *Validation of bioimpedance spectroscopy to assess acute changes in hydration status*. *Med Sci Sports Exercise*, 39:984-990, 2007.

DR. MEUILLET

Cherukuri, D.P., Chen, X.B., Goulet, A.C., Young, R.N., Han, Y., Heimark, R.L., Regan, J. W., **Meuillet, E.**, and Nelson, M.A. *The EP4 receptor antagonist, L-161,982, blocks prostaglandin E2-induced signal transduction and cell proliferation in HCA-7 colon cancer cells*. *Exp Cell Res*. 313(14):2969-79, 2007.

DR. ROMAGNOLO

Degner, S.C., Kemp, M.Q., Hockings, J.K., and **Romagnolo, D.** *Cyclooxygenase-2 promoter activation by the aromatic hydrocarbon receptor in breast cancer MCF-7 cells: repressive effects of conjugated linoleic acid*. *Nutr Cancer*, 59(2):248-57, 2007.

DR. THOMSON

Thomson, C.A. *Funding nutrition research: Where's the money?* *Nutrition in Clinical Practice*, 22:609-617, 2007.

Prentice, R.L., **Thomson, C.A.**, Caan, B.J., Hubbell, F.A., Anderson, G.L., Beresford, S.A., Pettinger, M., Lane, D.S., Lessin, L., Yasmeen, S., Singh, B., Khandekar, J., Shikany, J.M., Satterfield, S., and Chlebowski, R.T. *Low-fat dietary pattern and cancer incidence in the women's health initiative dietary modification trial*. *Journal of the National Cancer Institute*, 99:1-10, 2007.

Margolis, K.L., Rodabough, R.J., **Thomson, C.A.**, Lopez, A.M., and McTiernan, A. *Prospective study of leukocyte count as a predictor of incident breast, colorectal, endometrial and lung cancer and mortality in postmenopausal women. (For the WHI Research Group)*. *Arch of Int Med*, 167(17):1837-1844, 2007.

Pierce, J.P., Hollenbach, K., Caan, B.J., **Thomson, C.A.**, Stefanick, M., Karanja, N., Gold, E.B., Jones, L.A., Hajeck, R., Rock, C.L., Flatt, S., Newman, V., Faerber, S., Wasserman, L., Ritenbaugh, C., Bardwell, W.A., Natarajan, L., Kealey, S., Madlensky, L., Parker, B.A., Wael, Grove, K.M., Emond, J., and Marshall, J. *Telephone counseling helps maintain long-term adherence to a high vegetable dietary pattern*. *Journal of Nutrition*, 137:2291-2296, 2007.

Pierce, J.P., Natarajan, L., Caan, B.J., Parker, B.A., Greenberg, E.R., Flatt, S.W., Rock, C.L., Kealy, S., Al-Delaimy, W.K., Bardwell, W.A., Carlson, R., Emond, J.A., Faerber, S., Gold, E.B., Hajeck, R.A., Hollenbach, K., Jones, L.A., Karanja, N., Madlensky, L., Marshall, J., Newman, V.A., Ritenbaugh, C., **Thomson, C.A.**, Wasserman, L., and Stefanick, M.L. *The influence of a very high vegetable-fruit-fiber, low-*

fat diet on prognosis following treatment for breast cancer: The Women's Healthy Eating and Living (WHEL) randomized trial. *Journal of the American Medical Association*, 298(3):289-298, 2007.

JOINT APPOINTED FACULTY

DR. WATSON

Farid, R., Mirfeizi, Z., Mirheidari, M., Rezaieyazdi, Z., Mansouri, H., Esmaili, H., Zibadi, S., Rohdewalkd, P., and **Watson, R.R.** *Pycnogenol supplementation reduces pain and stiffness and improves physical function in adults with knee osteoarthritis*. *Nutrition Research*, 27:692-697, 2007.

NUTRITIONAL SCIENCES GRADUATE PROGRAM

Congratulations to the following Graduate Students who will be graduating this fall.



Master of Science
Jessica Miller

Jessica will be entering the Ph.D. Program in Nutritional Sciences.

Doctor of Philosophy
Stephanie Degner

Stephanie has accepted a position as a post doctorate at the Scripps Research Institute, Department of Immunology in La Jolla, CA. We wish her well.

Congratulations

The Department of Nutritional Sciences would like to congratulate Nicole Stendell-Hollis for receiving the following Scholarships and Awards:

- American Dietetic Association Foundation's 2007 Loyal E. Horton Memorial Graduate Studies Scholarship
- The Ruth Cowden Graduate Studies Scholarship
- W.T. and Winifred McClelland Graduate Studies Scholarship
- Mary C. Zahasky Memorial Continuing Education Award to attend the International Lactation Consultants Association 2007 Conference and Annual Meeting in San Diego, CA.
- Travel Grant Award to the American Institute for Cancer Research Conference on Food, Nutrition, Physical Activity and the Prevention of Cancer in Washington, D.C.

PRESENTATIONS, SEMINARS, CONFERENCES AND POSTERS

DR. HOUTKOOPER

Invited Presentation: **Dr. Houtkooper** and Melanie Hingle, MPH, RD. "Sports Nutrition: Training Tips and Tools." Southwest Chapter of the American College of Sports Medicine Conference, San Diego, CA, November, 2007.

Invited Presentation: "Are There Short Cuts to Weight Loss?" 11th Annual GSSI International Fitness Congress, Mexico City, Mexico, September, 2007.

Invited Presentation: Nutrition for Sprinters, Jumpers and Throwers. American College of Sports Medicine National Conference, New Orleans, LA, June, 2007.

DR. HONGU

Poster Presentation: Wisneski, K.D., Kinnard, K.N., Vance, M.L., Wise, J.M., **Hongu, N. K.** and Orr, B.J. "Exploring the Use of New and Emerging Technology to Promote and Maintain Physical Activity in Children", Research Frontiers in Nutritional Sciences Conference, October, 2007.

Poster Presentation: Hoelscher Day, S., Block, L., McDonald, D., Durrant, L., Whitmer, E., **Hongu, N.K.**, Jackson, R. and Stanford, V. "Healthy Active Kids", Research Frontiers in Nutritional Sciences Conference, October, 2007.

DR. MCCUNE

Seminar: **Dr. McCune**, research associate joined more than 50 professionals and graduate students from university nutrition and food science departments throughout the U.S. to participate in the National Institutes of Health (NIH) Office of Dietary Supplements (ODS) first intensive practicum in Dietary supplement research. This was held in Bethesda, MD, May, 2007.

DR. MEUILLET

Invited Presentation: "Is mPGES-1 a good target for the treatment of inflammation?" College of Pharmacy, September, 2007.

DR. MISNER

Conference: **Dr. Misner** represented Arizona as the Arizona Delegate at the American Dietetic Association's House of Delegates in Philadelphia, PA, September, 2007.

Conference: **Dr. Misner** attended the W-1003 Multi-State Research Group in Spokane, WA. Fourteen participants attended and focused on completing their project: Parent and Household influences on calcium intake among early adolescent. The end of the meeting was devoted to completing a new proposal for 2008-2013. November, 2007.

DR. THOMSON

Invited Presentation: "The role of bioactive food constituents in vegetables and fruit in cancer prevention", Fruit & Vegetable Health Conference (FAV) Houston, TX, October, 2007.

Conference: American Dietetic Association Research Meeting, Chicago, IL, August, 2007.

Conference: Walnut Commission Conference, Honolulu, HI, July, 2007.

DR. WINZERLING

Conference: W102 USDA Regional Project Meeting in Washington, D.C., May, 2007.

A SPECIAL THANK YOU

The Department of Nutritional Sciences and Dr. Going would like to express their gratitude to Dean Colin Kaltentbach and the College of Agriculture and Life Sciences for their generous support and contribution towards the purchase of a Peripheral Quantitative Computed Tomography Scanner (pQCT). This pQCT purchase was funded through a National Institutes of Health grant and a generous donation from the College of Agriculture and Life Sciences. This instrument is the only one of its kind in the State of Arizona and will be available to department researchers and other researchers campus wide. The pQCT measures bone density and bone geometry in children.

FACULTY IN THE NEWS

DR. GOING

Congratulations to Dr. Going who was featured in the BIO5 Institute on-line E-Newsletter in May, 2007. Dr. Going is one of five University of Arizona professors with projects that are among a 23 statewide split. These projects will be sharing approximately \$3.75 million in Science Foundation Arizona's competitive advantage awards this year. The awards are designed to give seed money to researchers with proposals that hold promise for federal funding. Dr. Going's study is on exercise and bone development in young girls.

DR. MEUILLET

Dr. Meuillet was featured in the UA Bio5 News with an article titled "UA Bio5 Researchers Pursuing Three First-in-Class Cancer Therapies". Dr. Meuillet is among three researchers at The University of Arizona's Bio5 Institute and the Arizona Cancer Center who has discovered novel therapeutic strategies to treat cancer.

NUTRITIONAL SCIENCES UNDERGRADUATES

Nutritional Sciences students were recently honored by the College of Agriculture and Life Sciences at the Honors Convocation held on October 19, 2007. The following students were recognized for outstanding academic achievement.

Highest Academic Distinction

Randi Byrd	Lisa Hamilton
Tyler Maly	Kristen Scheckel
Adam Womack	

Academic Distinction

Mina Batubara	Lauren Colick
Kathryn Elofson	Shannon Eshelman
Leah Neff	Stephanie Tammen
Sarah Tarabichi	Elisa Travaglio
Aubrey Uhling	Jessie Zepeda

National Merit Scholar

Jessie Zepeda

Congratulations

Jamie Wise has been selected to receive a University of Arizona/NASA Space Grant Undergraduate Research Internship for the 2007-2008 academic year. She will be working on nutrition and physical activity research with her mentor, Dr. Hongu, Assistant Professor and Nutrition Extension Specialist. Jamie and Dr. Hongu, with the help of two other Space Grant interns, will be working on research aimed at finding ways to promote a healthy lifestyle. Specifically, this research will be aimed at improving eating habits and increasing the overall amount and frequency of physical activity using new and emerging location-based technology, i.e. global positioning system (GPS) and geographic information systems (GIS). Jamie and the other interns will be presenting their research results at the annual AZ/NASA Space Grant Statewide Symposium to be held April 18-19, 2008.

For more information about this award see the following link: http://spacegrant.arizona.edu/fellowships/programs/internships/07_interns.shtml.

Congratulations

Congratulations to **Amanda Murphy**, a senior and Dietetics major, who was chosen as the College of Agriculture and Life Sciences Outstanding Graduating Senior for December, 2007. The Nutritional Sciences Department is proud to have such a remarkable representative.

EVENTS AND CONFERENCES

Walk Across Arizona

Walk Across Arizona is a State-wide physical activity program that encourages individuals and families to increase their participation in activities that promote a healthy lifestyle. Two teams from the Department of Nutritional Sciences have been registered to compete with more than 100 teams from Pima County. This event takes place November 2007 - March 2008.

If you would like more information on *Walk Across Arizona*, or would like to captain a team, please visit website <http://cals.arizona.edu/walkacrossaz/> or contact Linda Block at 520-626-5161 or email lblock@ag.arizona.edu.



Research Frontiers in Nutritional Sciences Conference

The second biennial Research Frontiers in Nutritional Sciences Conference was held October 22-23, 2007, at the University of Arizona, Student Union Grand Ball Room.

Goals for the conference were:

- Discuss novel research approaches to the treatment and prevention of obesity, cancer and diabetes.
- Describe the influence of diet and nutrition on genomics, proteomics, and metabolomics in the setting of obesity, cancer and diabetes.
- Develop and facilitate interdisciplinary interactions leading to collaborations among participating scientists and clinicians.
- Foster growth of junior investigators and graduate students.

Congratulations to the top four Student Poster Award winners, Rebecca Hurst from the University of Utah, Jan Egan, Laura La Bonte and Daniel Link from the University of Arizona.

A special thank you to our conference sponsors:

- Department of Nutritional Sciences
- Arizona Cancer Center
- Bio5 Institute
- Center for Physical Activity and Nutrition
- College of Agriculture and Life Sciences
- Mel and Enid Zuckerman College of Public Health
- Eurofresh Farms
- Novo Nordisk
- Southwest Environmental Health Sciences Center

HONORS AND AWARDS



Kelly Jackson, M.S., R.D.

David Cox, The Bart Cardon Associate Dean for Academic Programs for the College of Agriculture and Life Sciences and especially the Department of Nutritional Sciences extend congratulations to Kelly Jackson. Kelly received the 2007 Alpha Zeta Fraternity A+ Advisor Award at the CALS Honors Convocation held on Friday, October 19, 2007.

Her contributions to the teaching, advising and learning environment in CALS and our Department are very important and appreciated. The quality of our undergraduate program and the positive outcomes for our students depend upon the excellent work done by Kelly and her colleagues.



Kay Hongu, Ph.D., R.D.

Congratulations to Dr. Hongu, Assistant Professor and Nutrition Extension Specialist. She along with Linda Block, Pima County Extension Associate Agent, Sharon Hoelscher Day, Coordinator, Maricopa County Community Health Programs, Robert Armstrong, Extension Support Systems Analyst and Robin Harris, Public Health Associate Professor of the Arizona Cancer Center received the 2007 NEAFCS Western Regional Communication Award for Internet Education Technology for Walk Across Arizona. Dr. Hongu took first place in the Western Region and third place Nationally.

DEPARTMENTAL SEMINARS

Dr. Sean Limesand, Assistant Professor, Department of Animal Sciences, University of Arizona, College of Agriculture and Life Sciences

Topic: Abnormal Fetal Nutrition Initiates a Developmental Adaptive Response That Impairs Insulin Secretion and Action.
September 5, 2007

Dr. Janet Funk, Research Associate professor, University of Arizona, College of Medicine

Topic: Botanical Dietary Supplements for the Treatment of Skeletal Disorders: Peril or Promise?
September 12, 2007

Dr. Melissa Faulkner, DSN, RN, Gladys E. Sorensen Endowed Professorship, University of Arizona, College of Nursing.
Topic: Cardiovascular Risks in Youth With Diabetes: Homocysteine, Lipids, and Diet.
September 26, 2007

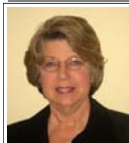
Dr. Kristen Limesand, Assistant Professor, University of Arizona, Department of Nutritional Sciences

Topic: Mechanisms of Salivary Gland Sensitivity to Therapeutic Radiation.
November 21, 2007

Dr. David Wong, DMD, DMSC, Professor, David Geffen School of Medicine, UCLA, Associate Dean of Research, UCLA School of Dentistry

Topic: Salivary diagnostics: Scientific and Clinical Frontiers.
November 28, 2007

NUTRITIONAL SCIENCES ALUMNI UPDATE



Jeanne Klingenberg Herrman, R.D.

Jeanne graduated from the University of Arizona in 1971 with a Bachelor of Science degree in Food and Human Nutrition. She was in the first University of Arizona/Good Samaritan Hospital (Phoenix) Dietetic Internship Program. She completed the internship along with Caryn Goodfriend Patton ('71), Robyn DeBell ('68), and Sheryl Fong Chan ('72). While the other 3 interns went on to complete their Master of Science degrees, Jeanne went instead for her "Mrs." degree and followed her husband David Thomas Herrman ('71) to California where she began her career as a registered dietitian, wife and mother for the next 36 years. Initially, she was a therapeutic dietitian for 4 years at Hawthorne Community Hospital where she was promoted to Chief Clinical Dietitian. This led her into a career path as the director of several hospital food service operations, the last being at Huntington Memorial Hospital in Pasadena, California.

In the 1990's, the climate of the industry and the profession was changing. It was at this time Jeanne developed her own consulting firm, JK Consultants, providing individualized nutrition support to a diverse client base ranging in age from newborns to geriatrics. In addition, she has provided food safety and menu/recipe analysis in a variety of settings; the most recent being in Assisted Living and Alzheimer facilities. She continues to keep her clinical nutrition skills current by also working at the Eden Medical Center and Laurel Grove Rehabilitation Facilities in Castro Valley, California.

She has been active in local Dietetic Associations through the years. Her foundation of nutrition knowledge gained at the University of Arizona has always proven valuable. In addition to working nearly full time since graduation in 1971, she has enjoyed raising a family, son, Bryant, and two grandchildren, Alex and Joey.

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.

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