Hello Everyone,

If the purpose of a newsletter is to convey news, then we are in business.

During the summer and fall, we received nine grants funding research and extension projects. We added several new members to our Department: Drs. Melanie Hingle, Ornella Selmin, and Mari Wilhelm, and to our extension program Sharon Hoelscher-Day. We “extended” our extension programs by increasing our SNAP-Ed budget. Our instruction programs are booming; we now have nearly 500 undergraduate majors. We also received a National Needs Fellows grant from USDA that will fund graduate student training in obesity research, and we hosted our biennial Research Frontiers in Nutritional Sciences (RFNS) conference. Well, that’s that.

It was wonderful to see so many of you at the RFNS conference. If you participated, you enjoyed first-rate presentations on the latest research in the areas of cancer, diabetes, obesity and bioactive compounds. As part of the conference, we paused to pay tribute to the life, discoveries and dedication of Dr. Darrel Goll by an afternoon of great science in muscle biology. The conference and tribute were funded exclusively by federal and foundation grants, contributions from Colleges and Centers, as well as donations from corporate sponsors. We are most grateful to all those who partnered with us to make the conference possible.

Over the coming months, we will launch several new online courses as part of Anyplace Access for Arizonans. The courses will bring the latest nutrition information to you wherever you are. We also are rebuilding our website. The website has been “limping along” since early fall due to a nefarious group that attacked the abstract section of for the RFNS conference site. We apologize for any frustration this may have caused. (I think people who do such things have way too much time on their hands.)

None of our programs would be possible without the people who make it all happen. We are blessed with an outstanding faculty and staff, research target areas that are in demand, great undergraduate and graduate students, prosperous extension and outreach programs, and productive alumni.

As we enter the holiday season, I wish you time to read, to relax and to reflect. I wish you time to spend with those you love. I wish you peace and a very Happy New Year.

NEW GRANTS

- **Integrating the New Walk Across Arizona Website with Multiple Signature Program Areas to Promote Physical and Financial Health.** Nobuko (Kay) Hongu (PI)
  Funded by: Arizona Cooperative Extension
- **Multidisciplinary Doctoral Training in Human Nutrition and Obesity.** Scott Going (PI), Cyndi Thomson and Joy Winzerling
  Funded by: US Department of Agriculture
- **Expression of p45 Following Restoration of Radiation-Induced Salivary Gland Dysfunction.** Kirsten H. Limesand (PI)
  Funded by: National Institutes of Health
- **Autophagy & Functional Restoration of Irradiated Salivary Glands.** Kirsten H. Limesand (PI) and Randy Burd
- **Novel AKT PH Domain Inhibitors to Prevent Skin Cancer.** Emmanuelle J. Meuillet (PI)
  Funded by: National Institutes of Health
- **Arizona Nutrition Network/SNAP-Ed Program.** Scottie Misner (PI)
  Funded by: US Department of Agriculture 2010.
- **Epigenetic Programming of Breast Cancer and Nutrition Prevention.** Donato Romagnolo (PI)
  Funded by: US Department of Agriculture/Texas A&M University.
- **Efficiency of Daily Grapefruit Exposure in Reducing Body Weight.** Cynthia Thomson (PI)
  Funded by: US Department of Agriculture/Texas A&M University.
- **Mexican Children and Youth in the Sonora-Arizona Borders: Needs Assessment.** Mari Wilhelm (PI)
  Funded by: Programa de Investigacion en Migracion y Salud; administered by the Health Initiative of the Americas/California Program on Access to Care under the University of California Berkeley, School of Public Health.

WELCOME

- **Melanie Hingle** who joined our research faculty as an Assistant Research Scientist.
- **Jesus Acuna** who joined the Department in August, 2009 as an Instructional Specialist, Senior working with Jennifer Reeves.
- **Marilyn E. Overpeck** joined the SNAP-Ed staff in August, 2009. She comes to us from Financial Services and has provided us with valuable contacts in the University administration.

INSIDE THIS ISSUE:

- Faculty Publications
- Awards and Notables
- In The News
- Faculty Presentations, Seminars, and Conferences
- Arizona Nutrition Network Update
- Undergraduate Student News
- Departmental Seminars
- Graduate Degrees / Awards
- Alumni Update
- Interview with Dr. Cynthia Thomson
- Congratulations to Dr. Limesand
- Thank You to our RFNS Supporters
**FACULTY PUBLICATIONS**

**N. Hongu et al.**


**W. Howell**

**E. Meuillet et al.**


**D. Romagnolo et al.**

**O. Selmin et al.**


**C. Thomson et al.**
Low to Moderate Alcohol Intake is not Associated with Increased Mortality After Breast Cancer. (accepted November 2009), CEBP.  


**M. Wilhelm et al.**


**AWARDS AND NOTABLES**

**Dr. Randy Burd:** Bart Cardon Early Career Faculty Teaching Award, College of Agriculture and Life Sciences 2009.

**Trudy Morrow:** 2009 2nd Quarter Outstanding Staff Award, College of Agriculture and Life Sciences.

**Jennifer Reeves:** was chosen to serve on the Center of Disease Control/National Association of Sport and Physical Education Comprehensive School Physical Activity Program Writing Team. She will provide critical expertise to the development of a guide for schools. This guide will complement the CDC’s 2nd edition of the School Health Guidelines to Promote Lifelong Healthy Eating and Physical Activity Among Young People. She also was selected as the Arizona Department of Education Lead Trainer for the implementation of new Health and Physical Education standards in Arizona Schools.

**In the News**

**Dr. Randy Burd** was featured in the UA News with an article titled “Sensitizing Tumor Response to Cancer Therapy.” The article describes his work to find natural, biologically active compounds that will sensitize cancerous tumors to therapy without damaging normal tissue.

**Dr. Scott Going** was featured in the UA News and the EvLiving.com with an article titled “Combating Childhood Obesity Through Technology.” Dr. Going, along with Dr. Nobuko Hongu, and others are developing a multidisciplinary approach to fight obesity in youth. The Stealth Health program will use global positioning system and digital photography technology found in cell phones to encourage physical activity and better nutrition.

**Drs. Kay Hongu and Vanessa Farrell** were among four professionals selected as UA Cooperative Extension liaisons for the 4-H Healthy Living Task Force. Along with liaisons from other universities, this task force will help develop 4-H Healthy Living into a program priority and engage youth and their families in life-changing programs.

**Dr. Wanda Howell** was featured in Marquis Who’s Who in America, 64th Ed., 2010.

**Jennifer Reeves** was interviewed by Martha Vasquez of KVOA News for the Topic of Teen Bone Health and the new US DHS Best Bones Forever campaign for girls. This is part of the Jump In Program that engages over 500 girls, ages 9-14, in the Marana and Catalina Foothills School District. To find out more about the program visit the website at http://www.bestbonesforever.gov/index.cfm.
Faculty Presentations, Seminars, and Conferences

Dr. Hongu

Sharon Hoelscher-Day
Invited Presentation: Sharon Hoelscher-Day, Regional Specialist, participated in teaching conference attendees important aspects on Bone Builders and bone health for the first “Living Well for Arizona Families.” Conference at the Maricopa County Cooperative Extension in Phoenix, AZ, October, 2009.

Dr. Howell

Dr. Limesand

Dr. Houtkooper

Dr. Meuillet
Invited Presentation: “Bile Acid Signaling and Colon Cancer.” U of A Department of Pediatrics, Steele Children’s Research Center, College of Medicine, Departmental Seminar, June, 2009.


Invited Presentation: “Inhibition of Novel Molecular Targets of Prostaglandin in Formation for Antitumor Activity.” Department of Molecular Medicine, Seminar Series, U of Conn., September, 2009.


Dr. Misner
Conference: W-2003 Annual Multi-State Meeting at UC-Davis where she served as Secretary. She was elected Chair of W-2003 Multi-State Research Group during 2010. November, 2009.

Dr. Romagnolo


Drs. Romagnolo and Selmin

Dr. Selmin

Dr. Thomson


Conference: Vegetable & Fruit Improvement Center Conference, Austin, TX, August, 2009.


Poster Presentation: “One Year Results From the Multi-Site Randomized Trial of the Jenny Craig Weight Loss Program.” North American Association for the Study of Obesity, Washington, DC, October, 2009.

Arizona Nutrition Network Update

The AzNN currently works with over 90 schools and Parks and Recreation sites, and is now expanding to include other organizations in the community, such as the Pima County Cooperative Extension 4-H, the Master Gardener programs, and the Community Food Bank. This year, 4-H clubs will incorporate nutrition education into their monthly meetings and club projects. The Master Gardeners have volunteered to consult with teachers and students at participating schools about developing new and supporting on-going school gardens. The AzNN also was recently featured in an interview that was profiled in UA News, while Dr. Scottie Misner was interviewed by the Arizona Daily Star about SNAP-Ed (Food Stamp Program) and the AzNN. The AzNN team includes: Scottie Misner, Ph.D., R.D., Vanessa Farrell, Ph.D., R.D., Jennifer Reeves, M.Ed, Laurel Jacobs, MPH, Heather Ottenbacher, M.S., R.D., Jennifer Martinez, Erin Nursa, and Jesus Acuna.
**Undergraduate Student News**

**Alison Arterbury** presented a poster titled “Physical Activity and Bone Geometry in Young Girls” and **Salena Meyer**, presented a poster titled “IGF1 Affects the Response of Salivary Glands to DNA Damage Following Irradiation” at the 14th Annual Graduate College Summer Research Conference, University of Arizona Student Union, August, 2009.

**Congratulations to Andrew Hinojos** who was selected as the Nutritional Sciences Outstanding Graduating Senior for Fall, 2009.

**Rosalie R. Thornton, Rebecca G. Reed and Jenna K. Larsen**, (right to left) are undergraduate students who have been selected for the NASA Space Grant Internship Program for 2009-2010. They will be working on nutrition and physical activity research projects with their mentors, Dr. Kay Hongu (Department of Nutritional Sciences) and Dr. Barron Orr (Office of Arid Lands Studies).

**Martha I. Mosqueda**, a past intern (2008-2009) was selected to work on the Student Advisory Committee to help current NASA Space Grant Interns. For more information about these awards see the link: [http://spacegrant.arizona.edu/opportunities/internships/](http://spacegrant.arizona.edu/opportunities/internships/)

**Dr. Patricia Sparks** and her students prepare cookies for the Holiday Appreciation Celebration. We thank Dr. Sparks and her students for all their efforts for the celebration.

**Nutrition Club Buzz**

Congratulations to the Nutrition Club for all their hard work in collecting 3,960 pounds (40 pounds short of 2 tons) of food during their fall food drive for the Community Food Bank.

**Graduate Degrees / Awards**

**Doctors of Philosophy**

**Mary Picchioni**

Mary received her Ph.D. this fall, 2009. Her research explored nutritional injury in the context of chemotherapy-induced oral mucositis. She is currently applying for postdoctoral experience to continue her nutritional injury research.

**Graduate Awards**

Congratulations to **Nicole Stendall-Hollis** who received the MBNA Marketing Scholarship from the American Dietetic Association, and the McClelland W. T. Memorial Scholarship from the College of Agriculture and Life Sciences.

**Alumni Update**

**Gale Welter** received a Bachelor in Business Administration from the University of Michigan and worked as a CPA, a fitness club manager, and a group fitness instructor and personal trainer before beginning her career in dietetics. Her career change was based on a desire to help others in a meaningful and scientifically-based way to be their personal best, focusing in the areas of sports and fitness, weight management, and eating disorders. Gale completed her Bachelors and Masters degrees in Dietetics in 2003. She then worked for four years with the Bone Estrogen Strength Training (BEST) Study using her knowledge of both fitness and dietetics. During her time with BEST, she gained considerable experience in conducting a large research study and developed many lasting professional and personal relationships. She later completed her Dietetic Internship at Carondelet St. Mary’s Hospital and became an RD. Since then she has become board certified by the Commission on Dietetic Registration as a Certified Specialist in Sports Dietetics (CSSD).

In late 1999, Gale landed her dream job, Nutrition Counselor at the UA Campus Health Service, in the Health Promotion and Preventive Services Department. Now in her 10th year in this position, she does 1-on-1 nutrition counseling with UA students, including UA athletes, and students with disordered eating and weight management concerns. She also does nutrition outreach and mentors students. Gale founded and managed the Farmers’ Market at the UA, providing nutrition information via the participation of over 300 nutrition students. She also organizes the annual events for National Eating Disorders Awareness Week called “Love Your Body Day” for the UA.

Over the past 11 years since becoming an RD, Gale has been an active volunteer in local, state and national dietetics organizations, and is currently serving as Chair of the Sports, Cardiovascular, and Wellness Nutrition practice group of the American Dietetic Association. Her involvement has provided her with numerous education and networking opportunities that have fast-tracked her expertise, and given her access to leaders across her areas of practice. Her advice to all dietitians with a dream is to join and volunteer in the ADA practice group of their area of interest. By giving to and helping others, you will get the support to reach your goals.

This newsletter is also available online at: [http://nutrition.arizona.edu](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. 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.
Q. Tell us briefly what you study in your research.
My research is focused on the investigation of the role of vegetables and fruits, consumed as whole foods, in cancer risk reduction. My interests lie in the evaluation of dietary modification in the human diet and its impact on cancer and related health outcomes/co-morbidities including obesity, metabolic dysfunction, and cardiovascular risk. The majority of my research targets health promotion among cancer survivors.

Q. Describe your current research and ongoing projects.
Currently I am funded by USDA for several whole foods interventions including, a vegetable study to evaluate the optimal daily dose of bioactive-rich vegetables to promote reduction in oxidative stress and inflammation among overweight women; a study to assess the ability of daily carrot juice to increase plasma carotenoid levels and modulate oxidative stress among breast cancer survivors; a grapefruit feeding study to modify inflammatory response in overweight family members of cancer survivors, as well as a weight loss study among overweight females. In addition, I am involved in post-intervention data analysis for two large dietary intervention trials: the Women’s Health Initiative low fat dietary intervention and the Women’s Healthy Eating and Living study, a plant-based diet intervention among breast cancer survivors.

Q. You collaborate with several scientists, how do they fit in with your programs?
Collaborative “team” science is essential if you are interested in doing clinical research. There is no possibility of completing quality, high-impact science without collaborations. Further, collaborative relationships foster new ideas, critical thinking and generally make academic work more rewarding overall.

Q. What do you think is the most important contribution that you have made to your area of science?
I actually think developing strong graduates who go on to contribute to our understanding of diet and its role in cancer prevention is the most important contribution I can make. That aside, probably our finding that a low fat diet was associated with a significant 40% reduction in ovarian cancer risk was among the most important of our findings to date. Another important finding is greater intake of cruciferous vegetables, and vegetables generally, among breast cancer survivors taking tamoxifen results in a significant (35%) reduction in risk for recurrent or new breast cancer events.

Q. Why is it important?
The low fat ovarian cancer risk finding is extremely important in that it represents the first prospective randomized dietary intervention trial to demonstrate a significant risk reduction for ovarian cancer. Ovarian cancer is a rare event but carries a high mortality rate. Identifying lifestyle factors that can reduce risk for this disease is therefore crucial. The tamoxifen/cruciferous vegetable findings provide survivors with a reasonable dietary modification that is achievable in the target population and could result in a significant reduction in disease over time.

Q. What community groups have you worked with as partners and what are the benefits to the participants of these groups?
I have built relationships with a number of “community” groups – some local, some national. Primarily I have been working with cancer advocacy groups such as Susan G. Komen, American Cancer Society and local survivorship programs at the Cancer Center (Viva) and through Sunstone. I have also served on research boards for several produce groups including Produce for Better Health, California Walnut Commission, and Washington Cherry Growers. These relationships help our research program to keep a pulse on issues of importance to the cancer survivor community as well as to support our recruitment efforts into diet intervention trials.

Q. How have you translated your research into public education?
On several levels I have made translation of research to the survivor population a priority. Importantly I regularly provide public presentations on diet and cancer throughout southern Arizona as well as nationally. I have also served on research boards for several produce groups including Produce for Better Health, California Walnut Commission, and Washington Cherry Growers. These relationships help our research program to keep a pulse on issues of importance to the cancer survivor community as well as to support our recruitment efforts into diet intervention trials.

Q. How does your research fit into our signature research area of “Metabolic and Behavior Factors Influencing Body Composition?”
Actually our group translates research across this area as well as the “bioactives in cancer” target research area. Obesity is actually a primary health concern in a large percentage of cancer survivors – especially survivors of breast, ovarian and colorectal cancer. Several of our interventions have recruited overweight subjects as an “at-risk” group who may benefit from greater intake of vegetables and fruits. Further, in analyses of several of the intervention trials we have focused on evaluating the associations between overweight/obesity/body composition and health status. In the area of bioactives, I have been involved in several whole foods interventions with high-bioactive vegetables and fruits, many of which have assessed the effects of intake on specific biological mechanisms of cancer risk reduction.
Dr. Kirsten Limesand, Department of Nutritional Sciences Investigator Wins NIH Challenge Grant

Each year roughly 40,000 cases of head and neck cancer are diagnosed in the United States and the majority of them will undergo surgical resection of a tumor followed by radiation therapy. A common side effect associated with radiation therapy of the head and neck region is damage to the salivary glands. The most common symptom is a dry mouth that can lead to sores, cavities, problems in chewing and swallowing food, and infections. Salivary gland damage can greatly decrease the quality of life of the individual. Despite a volume of knowledge about salivary glands, there is no good way permanently to restore gland function. Artificial saliva is not a good long-term solution. Dr. Kirsten Limesand received an NIH Challenge Grant to study this problem. The goals of Dr. Limesand’s research are to learn the role of what is known as autophagy in salivary glands in response to radiation therapy, and by the use of small molecule approaches to determine whether activation of autophagy protects the glands or increases their injury. Autophagy is an ongoing process whereby cells digest and recycle proteins and organelles. Depending on the situation, it could be beneficial or not. The Limesand team hopes to find a way to speed up the restoration of salivary function. This research will contribute substantially to our understanding of salivary gland function, and how to restore function to these glands in head and neck cancer patients.

Challenge grants were specifically designed to fund highly innovative research that has the potential to have great impact. Thousands of proposals were submitted, but less than 3% were funded. Hat’s off and Congratulations to Dr. Limesand and to her collaborators, Dr. David Ann, Department of Clinical and Molecular Pharmacology, Beckman Research Institute of City of Hope, and Dr. Randy Burd, Department of Nutritional Sciences, University of Arizona, for this remarkable research effort and achievement.

We would like to acknowledge and thank all those whose financial support helped make our Conference possible.

College of Agriculture and Life Sciences

Cooperative State Research, Education, and Extension Service (CSREES), US Department of Agriculture

Novo Nordisk

GlaxoSmithKline

Susan G. Komen for the Cure

Takeda Pharmaceuticals, North America & Affiliates

Arizona Cancer Center and Cancer Biology GIDP

University of Arizona

Endocrinology and Diabetes Programs

The Kroc Foundation Lectureship Endowment

Mel & Enid Zuckerman College of Public Health

Southwest Environmental Health Sciences Center

Department of Chemistry and Biochemistry

Colleges of Letters, Arts and Science

Acknowledgments and Special Thanks to:

Trudy Morrow and Theresa Spicer, Conference Coordinators
Karen Grinfeld, Administrative Support, and Mohamed Hassan, Technical Support