Nutritional Sciences News

Division of Nutritional Sciences University of Illinois at Urbana Champaign Vol 13 No. 1 Fall 2000

മാരു A Word from the Director ജാഗ്ര

Welcome to this year's Division of Nutritional Sciences Newsletter. I hope that you enjoy this update of the Division activities for the past year. It has been a busy and exciting year in which we have undertaken many new initiatives. In last year's newsletter, I outlined my four goals for the Division as its new director. Namely, to build a greater sense of community among the participants in the Division Nutritional Sciences; to advocate hiring of a Physician Nutritionist to increase the clinical nutrition presence within the Division and on the University of Illinois campus. Third, to secure greater funding for the Division through on- and off-campus sources, including applying for a NIH training grant; and fourth, to expand the diversity within the Division faculty and students.

I am pleased to report that progress has been made on each of these goals. The number of faculty in the Division has increased in this past year. The new faculty represent a diversity of research interests ranging from consumer acceptability of food products to the molecular biology and biochemistry of selenoproteins (see page 7). The Division also played an active role in the recruitment of an exceptional nutritionist into the Department of Animal Sciences under the Faculty Excellence program sponsored by the University of Illinois. A search committee has been formed to hire a Physician with an interest in diabetes who will likely have close ties to the Division.

In September, the Division submitted a NIH training grant for pre- and postdoctoral fellows in the area of "Inflammation and Nutritional Dysfunction." The seven faculty mentors represent 4 departments in 3 colleges on the Urbana campus. Our most exciting new initiative is the "Nutritional Sciences Endowment Fund" which was launched at the Nutritional Sciences Mixer at EB 2000 in San Diego. The Endowment Fund raising effort is being coordinated by a Steering Committee consisting of Drs. Jim Robinson and David Baker of the Department of Animal Sciences; two alumni, Drs. Pamela Anderson and Kenneth Poirier; and a former faculty member and current member of our External Advisory Committee, Dr. Gil Leveille. Our long-term goal is to raise a \$1 M endowment. The interest generated by this account will more than double our current operating budget and will allow us to support student professional development through a variety of existing and proposed programs and the formation of endowed fellowships. To date, we have raised \$30,000 from former and current faculty, alumni, students, corporations and friends of the Division. We hope that each of you will want to be a part of this program. For more information about the Endowment Fund, please see page 3.

Once again, we will be hosting a University of Illinois Nutritional Sciences Mixer at the Experimental Biology 2001 annual meeting. We have had a wonderful turnout at this event over the past 4 years. The reception will be held on Monday, April 2nd from 6:30-8:30 PM in the Rosen Plaza Hotel on International Drive (ASNS HEADQUARTERS HOTEL). Check the EB program for the exact room and please plan to drop by and visit with faculty, students and alumni.

I want to thank Christine Atkinson for her excellent job in editing this year's newsletter. I wish you all a successful and fulfilling new year and welcome comments and insights from alumni and friends as we chart the future of the Division (217-333-4177 or sdonovan@uiuc.edu).

Charles M. . Alamour Sharon M. Donovan, Ph.D., R.D., Director



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EDITOR NOTES:

Welcome to the 2000 edition of Nutritional Sciences News! One of the most interesting aspects of compiling this newsletter is reading about the adventures of NS alumni. The challenges and successes that have been encountered are both exciting and encouraging. Many students have continued with their education and some have redirected their energies towards starting families. Others have moved miles from their alma mater in Illinois to areas as distant as Korea. Taiwan and Mexico. I hope you enjoy reading about these adventures in the 2000 edition of NSN. And best wishes for a healthy and prosperous New Year!

ക്കാര്യ

This newsletter is the result of teamwork, and I want to recognize and thank the many people that contributed to the 2000 issue.

Linda Barenthin—who is of course awesome, full of wisdom & advice and patient with the many revisions and questions...and questions...

Sandy Hannum—Thanks for the update from M&M Mars.

Judy Harriss—*The* woman to call for Functional Foods information.

Sandra Teixeira—those great EB pics are Sandra's creation.

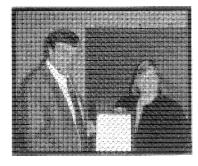
You—I want to thank all those who responded to the NS questionnaire so we could document their adventures for the year.

Christine Atkinson

Christine Atkinson

BURROUGHS-WELLCOME PRESENTS DR. RICHARD ATKINSON

March. the Division ln of Sciences Nutritional pleased to organize a lecture titled, "Obesity: Is There Hope for Effective Treatment?", by Dr. Richard L. Atkinson, recipient of the Burroughs-Wellcome Visiting Professorship in the Basic Medical Sciences. Atkinson is a world-renown expert in the field of obesity and is the current Director of the Beers-Murphy Clinical Nutrition Center at Research the Wisconsin. University of Madison. Originally hailing from Dr. Atkinson Virginia. researched actively obesity topics since 1977, resulting in over 125 publications and many presentations. reception was held at the home of Dr. John and Edie Erdman to preclude the week's presentations. Dr. Atkinson was a guest lecturer to the NS 461, clinical module on obesity and presented a public lecture titled, "Obesity: Is there hope for effective treatment?"



Dr. Atkinson receives a plaque from Dr. Donovan.

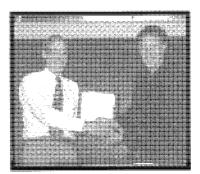
NS CREATES ENDOWMENT FUND

Diversity is a unique aspect of a degree in Nutritional Sciences. However, the interdisciplinary structure makes budgeting a little more challenging. excitina new venture underway intended to promote professional development of NS graduate students by funding assistantships, research grants travel to professional meetinas. An endowment to support these activities has been an idea for several years, but only became a reality when Dr. Jim Robinson agreed to lead this effort. In addition to Dr. Robinson, guidance is being provided by Drs. David H. Leveille Gilbert Α. (McNeil Healthcare Products). Pamela A. Anderson (Abbott Labs. Ross Products Division), and Kenneth Poirier (Toxicology Excellence Risk Assessment, TERA). Organizers have set a goal of \$1,000,000 and are requesting support from alumni, former faculty, friends of the Division and industry. Current faculty are supporting the effort is organizing NSGSA and fundraising events to help reach the goal. The Division of Nutritional Sciences announced the beginning of a 2-year Endowment Initiative at EB2000 U of I Mixer. For more information on how to be a part of this exciting initiative, contact Jim Robinson (217-333-2469; ilrobins@uiuc.edu) or Rod Stoll, College of ACES Development Office (217-244-0479; stollr@mail.aces.uiuc.edu).

M & M MARS: GARY WILLIAMSON

Dr. Gary Williamson presented a series of four lectures at the University of Illinois on April 25-27, sponsored by the Mars Nutrition Research Council (MNRC). Dr. Williamson is an internationally recognized research scientist in nutritional and food biochemistry. Since 1992 he has been the Head of Phytochemicals at the Institute of Food Research in the U.K. His series of lectures gave a fascinating overview of the types of phytochemicals in foods, the enzymes which metabolize them, and the biological effects of the various metabolites. The lecture series was very well attended and provoked much discussion. The Mars Nutrition Research Council Lectureship will be an annual event at the U of I. Dr. Helmut Sies, wellknown in the field of antioxidant research will present the next MNRC Lectureship during the week of May 21, 2001.

---Sandy Hannum



Dr. Williamson receives a plaque from M&M Mars Research Council.



Nutritional Sciences External Advisory Committee 1999

We would like to extend a big "Thank You" to the 1999 External Advisory Committee. With their input, the Division of NS continues to meet the changing needs of the Nutritional Sciences Community.

Dr. Robert A. Burns Director, Product Development Mead Johnson Nutritionals Evansville, IN

Dr. Steven L. Ink
Director, Research & Services
Quaker Oats Co.
Research & Development
Barrington, IL

Dr. Guy H. Johnson Vice President Nutrition Kellogg Company Battle Creek, MI

Dr. Patricia A. Kreutler Matulis Northbrook. IL

Dr. Alfred H. Merrill, Jr.
Professor of Biochemistry
Department of Biochemistry
Emory University School of Medicine
Atlanta, GA

Dr. Gilbert A. Leveille World-Wide Vice President for Scientific & Regulatory Affairs McNeil Consumer Healthcare Fort Washington, PA Dr. Russell J. Merritt Medical Director, Pediatric Nutrition Ross Products Division Abbott Laboratories Columbus, OH

Dr. Robert M. Russell Associate Director USDA Human Nutrition Research Center for Aging Tufts University Boston, MA

Dr. Richard G. Shields, Jr. Nutrition Consultant Loveland, OH

Dr. Doyle H. Waggle Senior Vice President of Technology Protein Technologies International St. Louis, MO

Dr. Connie M. Weaver Professor and Head Dept. of Foods & Nutrition Purdue University West Lafayette, IN



Future Leaders in Nutritional Sciences



Spring 2000:

Brian Berg, Ph.D. candidate, B.S. in Biology, East Carolina U, Greenville, NC, 1997; M.S. in Physiology/Nutrition, North Carolina State U, 1999. Advised by Rodney Johnson.

Salim Budha, M.S. candidate, Doctor of Medicine, U of Dar Es Salaam, Tanzania, 1994. Advised by Terry Hatch.

Fall 2000:

Jamie Baum, M.S. candidate, B.S. in Dietetics, Dept. FSHN, UIUC, May 2000. Advised by Don Layman.

Fernanda Mateos, Nondegree student, Medical Doctor, University National de La Plata, Argentina, 1997. Advised by Sharon Donovan.

Catherine Miller, M.S. candidate, B.S. in Chemistry, Rose-Hulman Institute of Technology, Terre Haute, IN, May 2000. Advised by Kelly Tappenden.

Justine Olsen, M.S. candidate, B.S. in Dietetics, Eastern Illinois University, Charleston, IL, May 2000. Advised by Karen Chapman-Novakofski.

Suzanne Pelletier, M.S. candidate, B.S. in Dietetics, Dept. FSHN, UIUC, May 2000. Advised by Clare Hasler.

Peter Steinfelds, Nondegree student, B.S. in Biology & Chemistry, UIUC, May 2000. Advised by Keith Singletary.

Lisa Tussing, M.S. candidate, B.S. in Clinical Dietetics, SUNY College, Buffalo, NY, May 2000. Advised by Karen Chapman-Novakofski.

Chris Wharton, M.S. candidate, B.S. in Food Science, Dept. FSHN, UIUC, May 2000. Advised by John Erdman and Elizabeth Jeffery.

Susan Zaripheh, M.S. candidate, B.S. in Food Science; Ohio State University, 1999. Advised by John Erdman.

Xiangfeng Zhang, M.S. candidate, Bachelor of Medical Science, Medical College Shanghai Tiedao University, 1991. Advised by Jan Novakofski.

Spring 2001:

Jessica Hartke, Ph.D. candidate, B.S. in Animal Science and Chemistry, Southern IL University, Carbondale, 1998. M.S. in Animal Science, Southern IL University, December 2000. Advised by Sharon Donovan.

David Albin, Ph.D. candidate, B.S. in Animal Sciences, UIUC, 1998. M.S. in Animal Sciences, UIUC, 2000. Advised by Kelly Tappenden.

Weisong He, M.S. candidate, B.S. in Chemistry, Beijing Normal University, 1998. Advised by Manabu Nakamura.



New Faculty Additions to Nutritional Sciences

December 1999

Adrienne Perlman, Ph.D.
Associate Professor,
Department of Speech and Hearing
Science, College of Applied Life Studies

Dr. Perlman has NIH funding to quantify the temporal relationship between respiration and deglutition across the age span and as a function of certain disease states. As a professor in the Department of Speech and Hearing Science, she teaches a graduate course on Normal and Disordered Swallowing (dysphagia). The course emphasizes the physiology and pathophysiology of the oral and pharyngeal stages of deglutition and the strengths and limitations of various techniques for the assessment of oropharyngeal swallowing function. The need to provide adequate nourishment to a population who cannot safely manage oral intake of certain food viscosities is a serious issue. Dysphagia occurs as a result of various neuromuscular diseases, disorders and as a result of anatomical abnormality. As the population ages and as there is an increased ability to save children who previously would not have survived premature birth, the population with oropharyngeal dysphagia increases; safe and adequate nutritional intake is a goal for management of these populations.

--Adrienne Perlman, Ph.D.

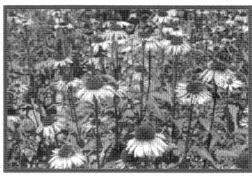


May 2000

Donald Briskin, Ph.D.
Professor,
Department of Natural Resources and
Environmental Sciences, College of
ACES

The focus of Dr. Briskin's research program is on the biochemistry of medicinal plants. His lab is conducting studies to determine how the growth environment of a medicinal plant affects production of active phytomedicinal chemicals. Their current work on growth environment effects has emphasized studies on St. John's wort (Hypericum perforatum) and Echinacea (Echinacea purpurea and Echinacea angustifolia). They are also examining how plant tissue culture methods can be utilized for optimal production of phytomedicinal chemicals in vitro. especially useful where factors such as slow plant growth rates, limited habitats, and environmentinduced variability are problematic for the recovery of medicinal chemicals. Here his work has focused on growth of Kava (Piper methysticum) in tissue culture for the bulk production of kavaphyrones, which are sedative chemicals generated by this plant. His research program also involves ethnobotanical studies on medicinal plant use by South American cultures and Eastern African cultures.

-- Donald Briskin, Ph.D.





New Faculty Additions to Nutritional Sciences

Alan Diamond, Ph.D. Associate Professor, Department of Human Nutrition and Dietetics, College of Health and Human Development Sciences, UIC

Selenium is an essential trace element currently being considered as a candidate chemopreventive agent. Research spanning the last 25 has established selenium is effective in the reduction of cancer incidence when provided to animals as doses only 5-10 fold above the nutritional requirement. Studies with selenium in animal model systems have indicated that this element is effective to most, if not all organ systems and is protective against carcinogenic effects of a wide variety of insults. His research is focused on two aspects of selenium biology, selenoproteins are synthesized and the mechanism selenium suppresses cancer. Selenium in protein exists predominantly as the amino acid selenocysteine, which is synthesized on a dedicated selenocysteine tRNA (sec tRNA). Subsequently, sec tRNA recognizes specific UGA codons in mRNA encoding selenoproteins, and the selenium-containing amino acid is added to the growing peptide. His laboratory continues to study the mechanism by which the cell

distinguishes between UGA triplets that signal the termination of translation and those that are genetic code words for selenocysteine.

The mechanism(s) by which prevents selenium cancer remains unknown. One possible mechanism by which selenium functions in chemoprevention is utilizing reactive oxygen species to stimulate cell growth and transformation. Using a synthetic selenium-containing antioxidant compound with activity, his laboratory recently demonstrated that this capable is of; 1) the suppressing oncogenemediated transformation mouse fibroblasts, 2) inhibiting carcinogenesis in an isolated mouse mammary gland assay, and 3) inhibiting the activation of jun kinase, a late step in the stimulated tyrosine kinase signaling cascade. His efforts now are focused on determining the specific site of action of this compound and to develop its use as a possible therapeutic His investigations into the mechanisms of selenium chemoprevention have also focused on a newly discovered selenoprotein of unknown function, referred to as the 15 kDA protein. Genetic analysis has revealed a polymorphism in the 3'-UTR of the encoding gene, in a region which is essential for the recognition of UGA codons as a code word for selenocysteine.

The distribution of this polymorphism is significantly different in African Americans vs. and loss Caucasians, heterozvaositv has been associated with several types of malignancies. The study of the function and regulation of the 15 kDa protein, and its role in cancer etiology and risk ongoing.

--Alan Diamond, Ph.D.

Brian Wansink, Ph.D.
Associate Professor,
Dept. of Business
Administration, College of
Commerce and Agricultural
Economics, College of
ACES.

Brian Wansink (Ph.D. Stanford University) is tenured а Marketing Professor in the MBA program at the University of Illinois. Because Dr. Wansink's expertise is directed toward the usage frequency and usage volume of products-such as meats, vegetables, snacks and desserts, his research focuses on how ads, packages, and personality traits can increase the usage frequency and usage volume of healthy and unhealthy foods. Recently, Dr. Wansink been focusing has consumer's perception of soy.



Research Awards at the University of Illinois

Professors:

David H. Baker received two grants; 1) Biokyowa Corp (\$110,000 for 2 yr)—isoleucine and valine nutrition of pigs, 2) C-FAR (\$110,000 for 2 yr)—means of improving phytate phosphorous utilization in chickens and pigs.

Karen Chapman-Novakofski developed a variety of teaching curriculums. *Nutrition and Wellness Curriculum, Osteoporosis Prevention Program* was developed through the Illinois Extension program. She developed a Meat Safety Curriculum as part of a USDA grant. Finally, Dr. Chapman-Novakofski coordinated the *Dining with Diabetes* program developed by colleagues at West Virginia University and adopted by the Illinois Extension educators.

Alan Diamond identified a functional role for a genetic polymorphism in the gene of a newly discovered selenoprotein, referred to as the 15 kDa Protein, and determined that the distribution for the polymorphic sequences differ in the DNA of tumors vs. that obtained from cancer free individuals.

Sharon Donovan received two grants from the USDA-NRI to study the "Impact of Dietary Fat on Intestinal Function in Neonates" and the "Impact of IGF-I Over Expression in Pig Mammary on Lactation and Piglet Intestine."

George C. Fahey, Jr. would like to highlight four areas of recent research in his lab:

- 1. Synbiotic Effects on Protein Catabolites in Human Large Intestine. Ross Labs, Columbus, OH.
- 2. Novel Resistant Starches. Kraft Foods, Glenview, IL
- 3. Soy Carbohydrate Effects in Swine Nutrition. Illinois Soybean Program Operating Board, Bloomington, IL.
- 4. Selected Sources of Vitamin C in Dog Diets. BASF Corp., Mt. Olive, NJ.

Tim Garrow's lab recently identified the ligands that chelate Zn within betaine-homocysteine S-methyltransferase (BHMT) (Biochemistry 1999; 38, 13991-13998), and cloned and characterized the mouse BHMT gene (Gene, in press). Using the information obtained from these studies, in collaboration with the Breslow Laboratory (Rochefeller University), the production of knockout mice for BHMT is underway as a mechanism to probe the physiological role this enzyme has in whole body homocysteine metabolism.

Rodney W. Johnson (PI) and K.W. Kelley received a grant for research titled, "Regulation of interleukin-6 in the aging brain," NIH/NIA (RO1), \$1,491,651, 2000-2005.

Students:

Denise Deming: Patent No. 5976598. 11/4/99. Akkaway, D.; **Deming, D.M.**; Klemann, L.; Menjivar, J.A.; Slade, L.; D'Amelia, R.; Galvraith J.T.; Madeka, H.; Sauer, R.M. Jr.; Yarger, R.G.; You, Z. Physically Coated Cellulose as a Low-Calorie Flour Replacement.



NS Faculty Award 2000

Every spring, students vote for a faculty member who has played an important role in NSGSA and student education development during the past year. This year's recipient is Dr. Kelly Tappenden. Kelly has been on campus only a short time, however, she has made significant contributions to the Division of Nutritional Sciences. She served on numerous student committees. assumed responsibility for the Graduate Dietetic Internship Program, as well as taught numerous courses in Dietetics and the Food Science Department. Drawing on her clinical nutrition experience, Kelly has sought to integrate her interest in nutritional research with the needs of the dietetics community. Currently, students in the Tappenden lab are investigating the regulation of gastrointestinal function through optimization of current nutrition support practices. Various models, such as in-vitro cell systems, in-vivo animal models and human clinical trials are being used to examine the role of enteral nutrients in maintenance of gut health. She has also been the moderator for the small discussion groups between students and the External Advisory Committee held each year. Despite being busy with her growing family (Kelly

and Trevor gave birth to a daughter, Katie, this Spring), Dr. Tappenden is always eager to discuss research topics with students. Dr. Tappenden received her B.S. (1992) and Ph.D. (1996) from the University of Alberta, and received a R.D. (1993) from Misericordia Hospital.



Pictured (L to R): Kelly Tappenden and Keri Kles.

"Kelly is very accessible to all the students in the program. In addition, she has an open door policy and is willing to help students find the answers to questions and guide them through the process of critical thinking while enhancing a scientifically intellectual environment. She helps students accomplish things that they didn't know they could accomplish as well as pushes her students to their potential and beyond. Also, she is very dedicated and hardworking."

-- Tappenden Lab



Professional Awards & Achievements

Alumni 2000

Mary Dean Coleman (M.S.) presented her research, "Nutrient Regulation Following Dietary Fiber Consumption in Ileal Cannulated Dogs" at the ASPEN (American Society for Parenteral and Enteral Nutrition) meeting in Jan. 2000. She completed her M.S. degree in December.

1998

Joshua Anthony (M.S.) is a member of the American Physiological Society, Endocrinology & Metabolism Section, and received Special Recognition for Research Achievement.

Joshua Bomser (Ph.D.) accepted a position as an Assistant Professor of Food Science and Technology at Ohio State University. He will be teaching and his research interests will focus on functional foods.

1995

Carrie P. Earthman (M.S.) published a paper in the Journal of Applied Physiology in March 2000 entitled "A Comparison of bioimpedance methods for detection of body cell mass-change in HIV infection."

Aparna (Reddy) Waegner (B.S. 1993, M.S.) Aparna completed a M.P.H. in Health Policy, UCLA.

Brent Flickinger (Ph.D.) chaired the Information Technology Management Committee and the-Membership Development Committee of the American Oil Chemists' Society.

1994

Alexandra Adams (M.D. 1993, Ph.D.) had publications in American Family Physician 1999 & 2000 and American Journal of Clinical Nutrition 2000.

Jin-Rong Zhou (Ph.D.) was promoted to Assistant Professor at Harvard Medical School.

1993

Courdjo Lamboni (Ph.D.) has been promoted to Associate Professor since the last session of the CAMES committee in July 1999.

1992

James Burns (M.S.) completed the M.S. program in biostatistics at UIC, and is currently working on data analysis of the Aban Aya Chicago African-American Health Behavior Project. He presented his work at the Society for Prevention Research meeting in Montreal in May.

1990

Janet Novotny (M.S.) was honored with the Early Career Scientist Award for 2000 by the USDA-Beltsville Area.

1984

Dr. Michael Keenan (Ph.D.) received \$39,000 for purchase of pDEXA for use in retired breeder rat studies on prevention of obesity and bone loss. pDEXA (peripheral DEXA) will perform wrist density in humans. In rats, pDEXA will perform body and bone density composition. His research uses ovarectomized and retired breeder rats as a model for postmenopausal women.

1981

Lisa Marshall (Ph.D.) is sitting on the Inflammation Steering Committee for the IAIS (International Association of Inflammation Societies) Meeting in Vancouver 2000.

1976

Guy Johnson (B.S. 1971, Ph.D.) survived a debate on the topic of "added sugar" with Michael Jacobson (CSPI) at the annual meeting of the Minnesota Dietetic Association.

Professors:

Sharon Donovan continued as *University Scholar* at the University of Illinois (1998-01).

Tim Garrow received the ASNS Mead-Johnson Award, 2000 and the College of ACES Faculty Award for Research, 2000.

H. Rex Gaskins was appointed *University Scholar*, 1999-2002, University of Illinois.

Bob Reynolds received the 2000 Excalibur Award for Teaching Excellence in May.



Professional Awards & Achievements

Students:

Clint Allred (Ph.D. Student) received the Environmental Toxicology Scholar Fellowship, the Society of Toxicology Graduate Student Travel Award and the Food Safety Specialty Graduate Student Award during the Midwest Society of Toxicology Graduate Student Poster Meeting (at the Society of Toxicology Annual Meeting). Clint finished first in the student oral competition during the annual Nutritional Sciences Symposium held in the spring. He was also invited to join Gamma Sigma Delta Agriculture Honor Society.

Christine Atkinson (M.S. Student) received a Margin of Excellence Research Award.

Denise Deming (Ph.D. Student) received the Graduate Student Vitamin Research Award (Institute of Food Technologists, Chicago Section, May 8, 2000), and a Student Research Award from the Division of Nutritional Sciences, (UIUC, 1999-2000). She also received numerous travel grants: 1) NIH-Office of Dietary Supplements, Student Travel Grant, 2) International Carotenoid Society Student Travel Grant for the 12th International Carotenoid Symposium held in Cairns, Australia, 1999. Denise also attended Conference/Workshop on Bioavailability of Dietary Supplements, Washington, D.C. January 2000.

Bart Deplancke (Ph.D. Student) received first place in the poster presentation at the Annual Nutritional Sciences Symposium, University of Illinois at Urbana-Champaign (2000), and the Margin of Excellence Research Award, Division of Nutritional Sciences, UIUC (2000). He is currently a Division of Nutritional Sciences Fellow, UIUC (1999-2000).

Keri Kles (Ph.D. Student) passed the Qualifying Exam on June 2nd, and is now a Ph.D. candidate. She received a Margin of Excellence Research Award, and an American Physiological Society Minority Travel Grant.

Sara Painter (M.S. Student) received a Margin of Excellence Research Award.

Cassandra Reyes (Ph.D. Student) received a USDA National Needs Fellowship (1998-2001), the American Physiology Society Travel Award and a UIUC Nutritional Sciences Margin of Excellence Research Award.

Sandra Teixeira (Ph.D. Student) was the recipient of numerous awards: 1) the NS Margin of Excellence Student Travel Award (Fall 1999), 2) Graduate College Conference Travel Support Grant (Fall 1999), 3) NS Margin of Excellence Student Research Award (Spring 2000), 4) Fundação para a Ciência e a Tecnologia (FCT) Fellowship (1999-2000) and 5) Fulbright Fellowship (1999-2000). Sandra also received a 2nd place poster award at the NSGSA Symposium (Spring 2000).

Kelly Swanson (Ph.D. Student) was a Jonathan Baldwin Turner (JBT) Graduate Fellowship recipient, and a Margin of Excellence Student Travel Award winner



FELLOWSHIP RECIPIENTS

Johnathan Baldwin Turner Fellowship

Anne Bartholome Mary Dean Coleman Elizabeth Flickinger Laura Milo

USDA National Needs Fellowship

An-Chian Chen Sara Painter Cassandra Reyes

South African Exchange Program

<u>Scholarship</u>

Deshanie Ganessunker

American Heart Association

Norman Millian

Fulbright Fellowship

Sandra Teixeira

Fulbright-Garcia Robles

Claudia Tovar Palacio

American Physiology Society

Travel Award

Keri Kles

Cassandra Reyes

Value Added Fellowship

Catherine Miller

1999-2000 Margin of Excellence Award Recipients

Travel Awards:

Fall 99

Tom Boileau
Mary Dean Coleman
Bart Deplancke
Deshanie Ganessunker
Anna Keck
Kelly Swanson

Spring 2000 Clint Allred

Carolyn Huntington

Sandra Teixeira

Research Awards:

Spring 2000

Christine Atkinson
Tom Boileau
Anne Bartholome
An-Chian Chen
Nancy Correa-Matos
Denise Deming
Bart Deplancke

Anna Keck Keri Kles

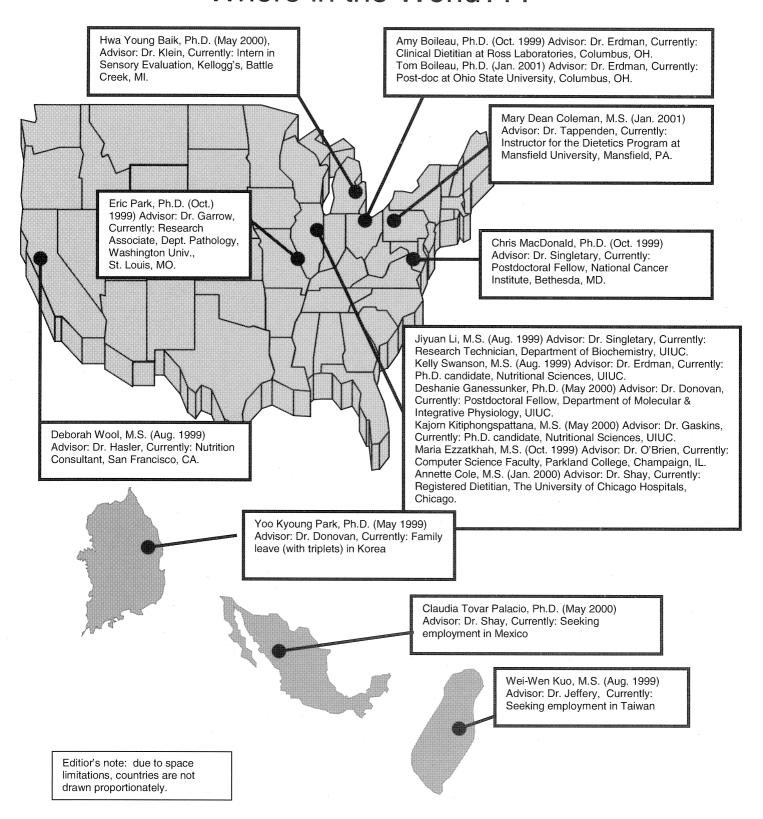
Anne Kurilich

Sara Painter

Cassandra Reyes Kristin Reardon Sandra Teixeira



Where in the World???





Alumni News or "Did you hear who had a baby?"

Alumni:

2000

Annette Cole Boogerd (M.S.) was married on Jan 15, 2000 to Timothy Boogerd.

1999

Amy Boileau (Ph.D.) and Tom (Ph.D. 2001) gave birth to Grace Helena in September. Amy received her R.D. in May 2000.

1998

Joshua Anthony (M.S.) & Tracy (Gautsch) Anthony (Ph.D.) welcomed their 1st child, Alexandra Kathryn, on October 21, 2000.

Joshua Bomser (Ph.D.) accepted a position as an Assistant Professor of Food Science and Technology at Ohio State University. His teaching and research interests will focus on functional foods.

1997

Jason Emmert (B.S. 1992, M.S. 1994, Ph.D.) and family are expecting a second child in late August. Their first daughter, Abigail, was 2 on August 19.

1995

Mary (Larson) Dicklin (Ph.D.) and Marc (M.S. 1996) had a baby boy, Nicholas Thomas, on March 15, 2000.

Carrie P. Earthman, Ph.D., R.D. (M.S.) has a wonderful 18 month old daughter that she and husband Erik are very thankful for.

Brent Flickinger (Ph.D.) and family welcomed their first child, Samuel Colter, October 1999.

Susan Kandl-Gugger (M.S.) is working as a stay-athome Mom to one year old daughter, Morgan. Susan and Eric Gugger (FSHN Graduate) and big sister Morgan welcomed the newest Gugger, Isabela, in November 2000. The Gugger's relocated to Minnesota in January.

Aparna (Reddy) Waegner (B.S. 1993, M.S.) welcomed a baby boy, Gabriel Christopher Waegner, born 1/9/00.

1994

Sean H. Adams (Ph.D.), Sharon and big brother Connor Thomas Adams (3 yrs old.) welcomed the newest family member, Nathan Robert Adams.

Frantzie Balmir-Beauvais (M.D. 1996, Ph.D.) and family welcomed Erik Beauvais, born on Jan. 11, 2000.

Joan (Rokusek) Paul (B.S. 1992, M.S.) and family welcomed their 2nd child, Christopher Joseph, born on December 19, 1999.

Jin-Rong Zhou (Ph.D.) and family welcomed their third child (son), Daniel Zhou born on May 17, 2000.

1993

Julia Winter Mason (M.D. 1994, M.S.) married in June of 2000 and moved to Waunakee, WI in July.

1992

Gregory Wisont (Ph.D.) and **Karen (M.S. 1990)** welcomed a son, Caelan, born 4/19/00.

1990

Janet Novotny (M.S.) and her husband Joe are new parents of twin girls Katherine and Elizabeth.

Matt Kuchan (Ph.D.) and Sandy experienced the birth of their sixth child, Torey Lorraine Kuchan. Matt changed jobs within Ross Laboratories from Pediatric Clinical Research to his current position where he works with Keith Garleb and Bryan Wolf.

1989

Deborah L. O'Connor (M.S. 1986, Ph.D.) and her husband Michael Jory and their two daughters Bridget (10) and Mary-Kate (1) moved back to Southern Ontario this past summer. Debbie has accepted the position of Director of Clinical Dietetics and Senior Associate Professor in the Department of Nutritional Sciences at the University of Toronto.

1985

Sharon L. Hoerr (B.S. 1971, M.S. 1975, Ph.D.) noted her "baby" Christopher has graduated from high school as a 6'4" National Merit Scholar and will start this fall in the Honors College at Michigan State University in Mechanical Engineering.

Laura Rosch-Pieruccini (B.S. 1983, M.S.) welcomed Siena Marie, born 11/13/99.

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1984

Michael Keenan (Ph.D.) and wife Donna have been married for 22 years and their three children – Colleen, Chris, and Chad, (ages 16, 11 and 9, respectively) are growing up.

1982

Lisa A. Reich (B.S. 1979, M.S.) moved from Boston to California last year.

1981

Lisa Marshall (Ph.D.) is having fun raising her "now 1 year old" daughter, Tess Elizabeth Gallagher.

1975

Guy Johnson (B.S. 1971, Ph.D.) "I would like to acknowledge my advisor—Ed Perkins for making a huge contribution to my life—he will be missed!"

Kailash Mathur (Ph.D.) was elected chairman of Orangeburg County Democratic Party for a two-year term.

Professors:

Sharon Donovan's daughter Tory (4.5 yrs) and son lan (1.5 yrs) continue to delight their parents.

John Erdman completed a sabbatical leave with NS graduate, Steve Clinton, M.D., Ph.D. at the Arthur James, Cancer Hospital and Research Institute, The Ohio State University.

James L. Robinson accompanied a dozen undergraduates on an agricultural study tour of Honduras, January 5-15, 2000. They spent several days on the campus of Zamorano, The Pan-American School of Agriculture, with which the University of Illinois has a study abroad program. They also visited a number of agricultural enterprises from one coast to the other, including a shrimp farm, a tilapia (a type of fish) farm a chicken farm, a pineapple farm, a banana plantation, and a coffee processing plant. It was a memorable experience for all involved.

Students:

Christine Atkinson and husband, Mike are delighted with their first child, Elizabeth Leone, born the end of June.

Mary Dean Coleman has a job teaching Nutrition courses for the Dietetics Program at Mansfield University in Mansfield, PA.

Beth Flickinger and husband Jason are thrilled with Nathan Kenneth Flickinger, their 1st child born 2/27/00.

Laura Milo is engaged to be married on May 26, 2001.

Sara Painter has no babies yet, but her cat Ruby Tuesday received a new baby brother named Denny in January. Both were adopted from the Humane Society and behave as a typical brother and sister would.

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"Nature is what we know Yet have not art to say – So impotent our wisdom is To her simplicity" --Emily Dickinson



NSGSA News Notes

NSGSA 2000 OFFICERS ELECTED

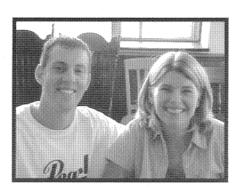
The elected NSGSA 2000 officers are: Co-chairs: Keri Kles and Cassandra Reyes Secretary: Harn Shiue Treasurer: Carl Sather Student representatives to Executive Committee: Clint Allred and Sara Painter



NSGSA Officers and Members (L to R): Sara Painter, Anne Bartholome, Keri Kles, Kasey Heintz, Harn Shiue, Cassandra Reyes, Clint Allred

4TH ANNUAL NSGSA CHILI COOKOFF

The 4th Annual NSGSA Chili Cookoff was held on Tuesday. February 8, 2000 in Bevier Spice Box just as everyone began their spring semester courses. Ticket sales were great (~70 tickets sold!), largely due to "pre-sales" outside the Bevier cafeteria. Willie Deverell and Dr. Painter were crucial to the success and assisted in supplying chili condiments and chili warmers. 10 chili recipes were entered in the competition with 3 top finishers, all receiving prizes. Nathan Matusheski (a first year FSHN Masters candidate) took 1st place with Texas Roadkill Chili and received a 1 gt crock pot. Megan McCarthy took 2nd place with her Turkey Chili and received soup bowls, spoons and a wooden Mary Dean Coleman spoon. claimed 3rd with her "Crockpot Chili" and received a cheese grater and wooden spoon.



Pictured L to R: Nathan Matusheski and Amy Hewitt

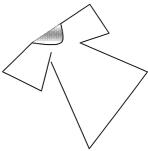
NSGSA GARAGE SALE

"One person's trash is another person's treasure!" On Aug. 12 NSGSA held a garage sale at Cassandra Reyes' residence. \$260 was generated from the sale.



NSGSA T-SHIRT SALES A BIG SUCCESS!

NSGSA held a T-shirt design competition this fall for this years NS T-shirt fundraiser. There were a variety of designs voted on by NSGSA members. An-Chian Chen created the winning design that was printed onto gray t-shirts, long-sleeved t-shirts and sweatshirts.



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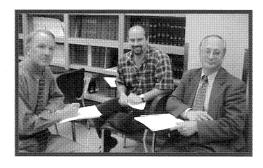


NSGSA News Notes

NSGSA SYMPOSIUM 2000

Mock EB Competition

April is an exciting month in the Nutritional Sciences Division. Many students attend the Annual EB meeting and in preparation for EB, the NS Student Symposium has always been a great opportunity for students to compete in "Mock EB." This year, NS and Animal Sciences Graduate students displayed their posters and presented their research (see pictures below) and responded to questions. First and second prizes were



awarded for the oral and poster presentations. Drs. Jim Drackley, Tim Garrow and Steven Zeisel (see picture, L to R) served on the oral competition judging committee. Bevier Café catered a reception following the judging of the posters.

Oral Competition:

1st Clint Allred, "Soy Diets Containing Genistein Stimulate Growth of Estrogen-Dependent Tumors in Dose Dependent Manner."





2nd Keri Kles, "Effects of Nutrients on Enterocyte Function During Hypoxia."



DR. STEVEN H. ZEISEL

In coordination with "Mock EB", students again organized a presentation by a respected scientist in the Nutritional Science area. This

year's invited speaker was Dr. Steven H. Zeisel a Professor in the Department of Pediatrics & Chairman in the Department of Nutrition, School of

Medicine and School of Public Health. Dr. Zeisel's talk entitled, "Regulation of 'Nutraceuticals' and Dietary Supplements" discussed his concerns about the DSHEA legislation and stressed the need to use safety and efficacy trials to validate dietary supplements. DSHEA legislation has been a



Pictured L to R: Dr. Zeisel, Kelly Swanson, Mary Dean Coleman

topic of great discussion as pharmaceutical companies begin loading their products with various phytochemicals believed to exert certain physiological benefit. However the validation process for these products has been bypassed by the DSHEA legislation, resulting in consumers ingesting concentrated phytocompounds not yet tested for allergic reactions, or other unforeseen complications.



NSGSA News Notes

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Each year NS Graduate Students compete in "Mock EB".

Students present their research, as it will appear at the Experimental Biology (EB) Conference and receive monetary awards to be used on their travels to EB. These poster winners are listed below.

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Team One Poster

1st Tom Boileau, "Influence of Testosterone and Diet Restriction on Lycopene Tissue Distribution in the Rat"

Team Two Poster

1st Bart Deplancke, "The Role of Sulfate in the Generation of Toxic Hydrogen Sulfide by Intestinal Bacteria."

Team Three Poster

1st Megan McCarthy, 'Intestinal Structure and Function in Piglets fed Formulas Containing Long Chain Polyunsaturated Fatty Acids."



2nd place: Carolyn Huntington, "Norepinephrine Release in PVN at Dark Onset is absent with Chronic Diet Restriction in Rats."



2nd An-Chian Chen, "Impact of Insulin-Like Growth Factor-I (IGF-1) on Proliferation and Lactase Activity in CACO2BBE Cells."



2nd place: Sandra Teixeira, "Plasma Isoflavone Concentrations in American Men and Women Consuming Different Levels of Isolated Soy Protein (ISP) up to 6 months."





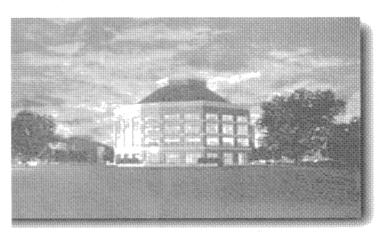


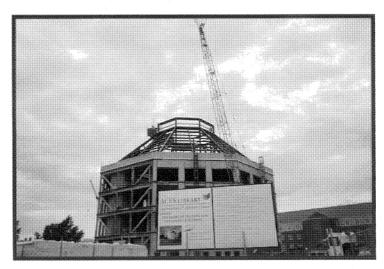
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NEW ACES LIBRARY!

The new ACES Library, Information and Alumni Center will be a focal point for exchange in Agricultural, intellectual Consumer and Environmental Sciences on the Urbana-Champaign campus. It will house the traditional collections of books and journals, while at the same time cutting-edge, technologically providing advanced information and communication services, including the latest in distance facilities. Computer-generated "virtual tours" of the finished facilities are available on the web: http://w3.aces.uiuc.edu/liac/





The new ACES Library under construction.

To learn more about the new ACES Library, Information and Alumni Center, please contact ACES Associate Dean for Advancement <u>Lynette Marshall</u> (telephone: 217-333-9355, email: Ilmarsha@uiuc.edu)

2003



Thank You...you will be missed



In Memory
PATRICIA V. JOHNSTON, 1932-2000

Pat Johnston, Professor Emeritus of Food Chemistry, died in Champaign on February 1, 2000. She came to the University of Illinois from England in 1954 to study lipid chemistry for her Ph.D. with Dr. Fred Kummerow. She became an assistant professor in 1958 and, except for a brief period in 1962-66 when she returned to England as a Lecturer at University College London. she remained a member of the faculty until she retired in 1995. She was also a professor of nutrition in Internal Medicine. Her teaching and research interests were in food chemistry and nutritional sciences, lipids and the nervous system, essential fatty acids, eicosanoids and immune responses. She is the author of 60 papers and two books: Basic Lipid Methodology and Nerve Membranes. She advised 25 students for their M.S. and/or Ph.D. degrees. (source: U of I FSHN Website)

Dr. Johnston became a member of the then "Nutritional Sciences Program" in 1968 and was "Committee Chairman" from 1974-77. In 1976 Dr. Johnston suggested to the Graduate College that a new form of governance for the program should be considered. Through various committees, the Division of NS was established in 1978. She served on many student committees, taught several Nutritional Science classes and had nine graduates.

Alumni memorial notes:

Patricia V. Johnston was academic advisor and mentor from 1982 through 1987. Directly upon leaving her lab with my new Ph.D., I took a faculty position at the University of Missouri, where I am currently an Associate Professor. I am just one of the many students that PVJ, that's what her students called her, trained and that have gone on to establish successful careers in academia and industry. With each passing year my appreciation for everything Pat did and didn't do for me grows. She expected her students to work hard, think critically and be independent. In fact, in recent years I sought her advice regarding mentoring some of my students. was a scholar, researcher and teacher. More than that, she was British! never forget those rum-soaked trifles or the Christmas crackers. Thanks for everything PVJ.

Sincerely, Kevin Fritsche, Ph.D.



Thank You...you will be missed



EDWARD G. PERKINS, 1934-2000

Edward G. Perkins, Professor Emeritus of Food Chemistry, died on Friday, May 19, 2000. He was an internationally recognized authority

on the chemistry of fats and oils. He obtained his B.S. degree in chemistry in 1956 and his M.S.

and Ph.D. degrees in food chemistry with Dr. Kummerow in 1958, all from the University of Illinois. After a short hiatus with the U.S. Army and a longer one at Armour and Co., he came back to the Department as assistant professor in 1960, and was housed in the Burnsides Research Laboratory. He moved to Agricultural Bioprocess Laboratory in 1998, setting up shop on the second floor. His focus was research, teaching and outreach in fats and oils, lipid chemistry and analytical chemistry. A special interest was the study of chemical transformations which take place during heating, the compounds formed, their isolation and characterization, followed in many cases by the organic synthesis of these compounds. These compounds have been used in animal studies to study their metabolism and distribution. Other involved the development chromatography-mass spectrometry-computer analysis methods for the detection of biologically important compounds. He also studied the relationships of phospholipids with water and organic solvents to understand their function in the degumming process and in food emulsions. He was considered one of the leading experts in of chromatography, types spectrophotometry and mass spectrometry. He was Director of the ACES Mass Spectrometry Laboratory located first in Burnsides Research Laboratory and later in the Agricultural Bioprocess Laboratory. He was the author of more than 140 scientific papers and the editor of ten books. His work netted him 8 major awards, including the A.E. Bailey Award and the A.R. Baldwin Distinguished Service Award from the American Oil Chemists Society, the Funk Award for Excellence in Research from the College of ACES and the first Steven S. Chang Award from IFT. He was elected Fellow of the American Oil Chemists Society in 1998 and he served as Vice-President and President of the AOCS. He supervised 22 M.S. theses and 25 Ph.D. theses. Dr. Perkins retired in August 1999, but continued to maintain an active research program. He died in St. Louis at the age of 65.

(source: U of I FSHN Website)

Dr. Perkins became a member in the Division of Nutritional Sciences in 1971. He taught several classes for the Division, served on many student committees and had four graduates.

Alumni Memorial Notes:

I had the privilege of knowing Dr. Edward Perkins as a doctoral student in his laboratory. He mentored all of his students with encouragement scientifically, professionally grow and personally. He was a terrific person challenged me during and after my training under his guidance. I will never forget the opportunities and advice he provided. I will never forget sharing a cup of fresh ground coffee to start the morning in Burnsides Research Laboratory. I will never forget sharing a glass of wine during dinner in his home. I will never forget his kindness, generosity and passion. These words can never fully reflect the impact that Dr. Perkins had on my life, but only let you know that I will never forget.

Sincerely, Brent Flickinger, Ph.D.



From the Archives...recent publications by U of I graduate students.

Clint Allred:

Allred C.D., Allred K.F., Ju, Y., Virant, S.M., and Helferich, W.G. Soy Diets Containing Genistein Stimulate Growth of Estrogen-Dependent (MCF-7) Tumors in a Dose Dependent Manner. *Cancer Research* (Submitted).

Book Chapter: Helferich, W.G., Allred, C.D. and Ju, Y.H. 2000. Dietary Estrogens and Antiestrogens. IN: Food Toxicology. Helferich, W.G. and Winter, C.K. (eds). CRC Press, Boca Raton.

Denise Deming:

Deming, D.M., Boileau, A.C., Lee, C.M., Erdman, J.W., Jr. 1999. Effect of Dietary Fat Level and Dietary Fiber Type on Beta-Carotene Bioavailability in the Gerbil. Abstract/Poster: 12th International Carotenoid Society Symposium, Cairns, Australia.

Bart Deplancke:

Deplancke, B., Hristova, K.R., Oakley, H.A., McCracken, V.J., Aminov, R., Mackie, R.I., Gaskins, H.R. 2000. Molecular Ecological Analysis of the Succession and Diversity of Sulfate-Reducing Bacteria in the Mouse Gastrointestinal Tract. *Appl. Environ. Microbiol.*, 66:2166-2174.

Beth Flickinger:

Flickinger, E.A., Wolf, B.W., Garleb, K.A., Chow, J., Leyer G.J., Johns, P.W., and Fahey, G.C., Jr. 2000. Glucose-based Oligosaccharides Affect Apparent Nutrient Digestibility and Function as Prebiotics in Dogs and Exhibit Dissimilar Human *In Vitro* Fermentation Characteristics. *J. Nutr.* 130:1267-1273.

Kasey Heintz:

Lee, C.M., Boileau, A.C., Boileau, T.W.M., Williams, A.W., Swanson, K.S., **Heintz, K.A.**, and Erdman, J.W. Jr. 1999. Review of Animal Models in Carotenoid Research. *J. Nutr.* 129:2271-2277.

Kelly Swanson:

Burkhalter, T.M., **Swanson, K.S.**, and Merchen, N.R. 1999. Factors Influencing Precedial Availability of Amino Acids from Dog Foods. Proceedings 1999 Purina Nutrition Forum. pp. 59-65.

Lee, C.M., Boileau, A.C., Boileau, T.W.M., Williams, A.W., **Swanson, K.S.**, Heintz, K.A., and Erdman, J.W. Jr. 1999. Review of Animal Models in Carotenoid Research. *J. Nutr.* 129:2271-2277.

Morin, D.E., Haddad, M.F., **Swanson, K.S.,** Merchen, N.R., Constable, P.D., Erdman, J.W. Jr., and Drackley J.K. 2000. Influence of Dietary Vitamin A Concentration on Health and Cerebrospinal Fluid Pressure in Holstein Calves. 2000 Illinois Dairy Report Managing in the New Millenium. pp. 58-60.

Swanson, K.S., Merchen, N.R., Erdman, J.W. Jr., Drackley, J.K., Orias, F., Morin, D.E., and Haddad, M.F. 2000. Influence of Dietary Vitamin A Level on Serum and Liver Vitamin A Concentrations and Health in Preruminant Holstein Calves Fed Milk Replacer. *J. Dairy Sci.* 83:2027-2036.

Swanson, K.S., Merchen, N.R., Erdman, J.W. Jr., Drackley, J.K., Orias, F., Douglas, G.N., and Huhn, J.C. 2000. Technical Note: A Technique for Multiple Liver Biopsies in Neonatal Calves. *J. Anim. Sci* .78:2459-2463.

Swanson, K.S., Merchen, N.R., Erdman, J.W., Jr., Drackley, J.K., Orias, F., Morin, D.E., and Haddad, M.F. 2000. Influence of Dietary Vitamin A Concentration on Serum and Liver Vitamin A Concentrations in Holstein Calves. 2000 Illinois Dairy Report Managing in the New Millenium. Pp. 61-63.

Swanson, K.S., Grieshop, C.M., Clapper, G.M., Shields, Jr., R.G., Belay, T., Merchen, N.R., and Fahey, G.C., Jr. 2000. Fruit and Vegetable Fiber Fermentation by Gut Microflora from the Canine. *J. Anim. Sci* (Submitted).

Sandra Teixeira:

Teixeira S., Potter, S.M., Weigel R., Hannum S., Erdman, Jr. J.W., Hasler, C.M. 2000 Effects of Feeding 4 Levels of Soy Protein for 3 and 6 Weeks on Blood Lipids and Apolipoproteins in Moderately Hypercholesterolemic Men. *Am J Clin Nutr.* 71:1077-1084.

Teixeira, S., Potter, S.M., Erdman, Jr. J.W. 2000. Plasma Isoflavone Concentrations in American Men and Women Consuming Different Levels of Isolated Soy Protein (ISP) up to 6 Months. *J. Nutr.* (Supplement: Third International Symposium on the Role of Soy in Preventing and Treating Chronic Disease 99, Washington DC). 683S-685S.



FUNCTIONAL FOODS FORUM

Functional Foods for Health 9th Annual Retreat

The Functional Foods for Health group held the Ninth Annual Retreat (May 15-17, 2000) at the Holiday Inn Hotel and Conference Center in Urbana, IL. A golf outing was held at the University of Illinois Blue Course in Savoy to let attendees relax and get to know one another before the start of conference. That evening a dinner was held followed by a presentation by Dr. Bruce Ames, the Keynote Speaker.

The next two days covered a variety of functional food topics ranging from recent functional food discoveries, to regulatory updates. The conference has proven itself to be an effective forum for the beneficial exchange of information between industry, government / regulatory and academia.



Keynote Speaker: "Prevention of cancer and delay of aging with micronutrients"

Dr. Bruce Ames is a leader in cancer research and has received numerous research awards. His presentation, "Preventing Cancer and with Delaying Aging Micronutrients", discussed the role micronutrient deficiencies play in development of cancer and aging. Dr. Ames stated that many of the common micronutrient deficiencies (B12, folic acid, B6, niacin, C or E, or iron, or zinc) damage DNA by mechanism same radiation and many other chemicals. Dr. Ames is currently Professor а of Biochemistry and Molecular Biology and Director of the National Institute Environmental Health Sciences Center, University of California Berkeley. As a member of the National Academy of Sciences, Dr. Ames serves on their Commission on Life Sciences. Dr. Ames was also a member of the board of directors of the National Cancer Institute, the National Cancer Advisory Board, from 1976 to 1982.

Student Poster Competition Winners

Student awards were given at the Functional Foods Retreat in the basic science and applied science area.

Basic Sciences:

1st: Xiaoying Xu at University of Illinois-Chicago, Advised by Dr. Richard van Breemen

2nd: Nathan Matusheski at University of Illinois: Urbana / Champaign, Advised by Dr. Elizabeth Jeffery.



Applied Sciences:

1st: Oliver Trochta at National College of Chiropractic, Advised by Dr. Malford Cullum.

2nd: Marco Sacchetti at National College of Chiropractic, Advised by Dr. Malford Cullum.

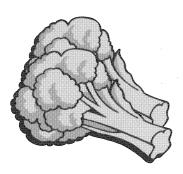
For more information:
Functional Foods for Health
University of Illinois at Urbana-Champaign
103 Ag Bioprocess Lab, MC-640
1302 West Pennsylvania Ave.
Urbana, IL 61801



FUNCTIONAL FOODS FORUM

Reorganization in the Functional Foods for Health Program

On June 27, 2000, a statement was signed by the Executive Committee to clarify the vision, governance, budget planning, and accountability of the program. This states that (1) the FFH program will be jointly administered by the Deans of the College of Pharmacy, UIC, and the College of ACES, UIUC, (2) protocols will be outlined for the executive committee to follow as it evolves into the advisory committee, (3) a leadership team including a director, associate directors of outreach research, (4) financial guidance from the College of Pharmacy or ACES depending on director's home institution. During the reorganization, Dr. Steve Pueppke, Associate Dean Research, College Agricultural, Consumer and Environmental Sciences. has agreed to be Interim Director of the FFH program. Dr. Hasler will Associate Director Outreach and Industry Liaison, and Dr. Andreas Constantinou will continue as Associate Director for Research for the FFH program.



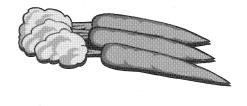
Multi-state, Multi-project USDA Grant will Study Four Functional Foods: Soy, Berries, Broccoli and Tomatoes.

Elizabeth Jeffery, Dept. of Food Science and Human Nutrition (FSHN), is program director on a new 4-year \$2.5 M multi-state, multi-project grant from the USDA, for the study of four functional foods: soy, berries, broccoli and tomatoes. Faculty members from the Functional Foods for Health program at the University of Illinois will work with scientists from the University of Missouri, Purdue University, and the USDA Nutrition Laboratory in Grand Forks, North Dakota to determine the extent to which health benefits offered by dietary supplements reflect those offered by the whole foods from which they are derived. Information is lacking that relates the bioactivity of whole functional foods to the purified bioactivity of components. The goal of this project is to compare the efficacy safety of individual components, mixtures of these components, and the whole food.

Work on soy, headed up by Dr. MacDonald of Ruth University of Missouri, and in conjunction with Dr. Helferich (FSHN) will compare the cancer chemo-preventative activity of several different soy varieties that vary in both their isoflavone and their lignan contents. Dr. Mary Ann Lila Smith, Department of Natural Resources and Environmental Science (UIUC) will direct studies on the bioavailabilty of proanthocyanidins from blueberries in conjunction with Dr. Connie Weaver of Purdue

University. Similar studies in conjuction with Dr. John Erdman (FSHN) will focus bioavailability of lycopene from whole tomatoes and semipurified extracts. Dr. Jeffery, together with Dr. John Finley USDA Nutrition from the Laboratories in Grand Forks. North Dakota, Dr. Barbara Klein (FSHN) and Dr. Jack Juvik. Dept. of Natural Resources and Environmental Science, identify the unique bioactive components in broccoli grown hydroponically in the presence of selenium, that make this food more effective in prevention of cancer than is normal broccoli in combination with inorganic selenium. The program also seeks to reach out to health professionals whose advice is frequently sought by the public on the safety and efficacy of dietary supplements. Dr. Clare Hasler (FSHN) will coordinate this tri-state outreach effort, with the aid of Dr. Cameron and Whitman Marge at University of Missouri and Dr. Charlie Santerre from Purdue University. They will be targeting registered dietitians, oncology nurses, and high school athletic coaches.

-- Dr. Elizabeth Jeffery



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"What I wished I knew in Grad school"... in their own words

Sean Adams (Ph.D. 1994): "I wish we would have all been exposed to a larger degree to the world of bioinformatics and genomics."

Cecelia Brown (M.S. 1984; Ph.D. 1988): "How to use the library more effectively!"

Steven K. Clinton (Ph.D. 1978; M.D. 1984): "Nothing, It is a time to be ignorant and focus on pure research, friends, and knowledge. It is not a time for distractions, they will come later."

Mary (Larson) Dicklin (Ph.D. 1995): "I wish that there would have been more information available to us in grad school about alternative careers for Ph.D.'s in nutrition. I work for a company that conducts clinical research for pharmaceutical, nutraceutical, and food companies, designing clinical trials and writing, medical documents (protocols, final reports, manuscripts)."

Jason Emmert (B.S. 1992; M.S. 1994; Ph.D. 1997): "That I would be even busier in my professional job."

Deshanie Ganessunker (M.S. 1996; Ph.D. 2000): "Taking more non-nutrition related courses, e.g. cell and structural biology and more importantly molecular biology."

Michael Keenan (Ph.D. 1984): "More molecular biology."

Robert E. Landers (Ph.D. 1970): "That the foreign languages requirement would be waved/relaxed; if I had known I could have taken useful business management courses in place of the courses and time I spent on foreign languages."

Tia Rains (Ph.D. 1998): "How the general population views nutrition, and how the government views and implements nutrition-related policies."

Anne M. Smith (Ph.D. 1986): "How much future interaction I would have with my fellow Illinois graduate students. The nutrition field is a 'small world."

Aparna (Reddy) Waegner (B.S. 1993; M.S. 1995): "I suggest all students take a 100 level class in business administration-- it will teach you skills you can use regardless of where your career takes you, and its very important to have this perspective if you're going to be working for a company (I've found). I regret I didn't go to all of the seminars. Something more urgent always seemed to come up, but now I know the seminars are a perfect way to balance your education."

Matt Kuchan (Ph.D. 1990): "How important it is to have an advisor like John Milner who busts your chops on study design and data interpretation."

Frantzie Balmir-Beauvais (M.D. 1996; Ph.D. 1994): "More about nutraceuticals."

Sharon L. Hoerr (R.D., Ph.D. 1985):

- 1. "How to advise graduate students!"
- 2. "How to conduct survey research and develop instruments."



Job Board... What are the current grad students hoping to do?

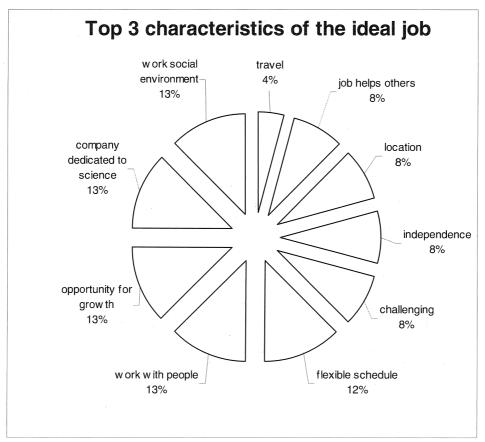
Clint Allred: "I would like to obtain an academic position that will enable me to have a competitive research program and provide teaching opportunities."

Laura Bauer: "Continue working as a lab tech."

Beth Flickinger: "Obtain a position either in academia or industry dealing with nutrition research, especially as is related to health and disease"

Harn Shiue: "I would like to obtain a position in industry working in the area of supplements or as a clinical dietitian."

Kelly Swanson: "Begin my career in the pet food industry designing/performing experiments that may enhance the nutritional status of dogs and cats."



Source: U of I NS Graduate Student responses to the Newsletter questionnaire

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"The brain is wider than the sky;
For put them side by side
The one the other will contain with ease And you beside."
--Emily Dickinson



INTERNET EXPRESS

Alumni

Alumni	Eirot nomo	email address
Last name	First name	
Adams	Sean H.	Shadams@gene.com
Anthony	Joshua	Joshuacanthony@hotmail.com
Balmir-Beauvais	Frantzie	fbalmir@pol.net
Bauer	John E. Dr.	Jbauer@cvm.tamu.edu
Boileau	Amy	Amyboileau@hotmail.com
Bomser	Joshua	jbomser@nature.berkeley.edu
Boogerd	Annette Cole	Atboogerd@prodigy.net
Bourquin	Leslie	bourqui1@msu.edu
Burns	James	jburns1@uic.edu
Clinton	Steven K.	clinton-1@medctr.osu.edu
Coleman	Mary Dean	mcoleman@mnsfld.edu
Curran Celentano	Joanne	Joannec@christa.unh.edu
de Leeuw	Nicole	NdeLeeuw@antrg.azn.nl
Dicklin	Marc	Marc_Dicklin@hotmail.com
Dicklin	Mary (Larson)	mdicklin@protocare.com
Duval	Larry Mark	Mark.duval@carle.com
Earthman	Carrie P.	cpearth@vt.edu
Emmert	Jason	Jemmert@comp.uark.edu
Flickinger	Beth	e-flkngr@ux6.cso.uiuc.edu
Flickinger	Brent	Flickinger@admworld.com
Fly	Alyce D.	afly@indiana.edu
Ganessunker	Deshanie	Ganessun@staff.uiuc.edu
Gautsch Anthony	Tracy	Tracyanthony@hotmail.com
Goode	Yolanda	Goode007@hotmail.com
Harden	Kathryn	ktharden@uiuc.edu
Hoerr	Sharon L.	Hoerrs@msu.edu
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PHOTO GALLERY



Dr. Clare Hasler and Joan (Rokusek) Paul at U of I EB Mixer 2000.



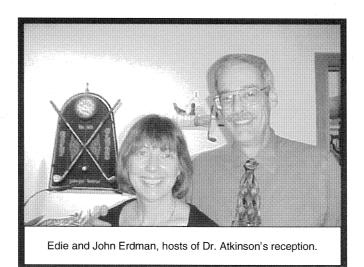
Dr. Erdman, Amy (Moore) Boileau, Kasey Heintz, Denise Deming at U of I EB Mixer 2000.



Dr. and Mrs. David Baker at reception for Dr. Atkinson, Burroughs Wellcome Visiting Professor.



Back row: Keri Kles, Dr. Atkinson, Kristin Reardon, Anne Bartholome, Front row: Mary Dean Coleman, Laura Milo at Dr. Erdman's reception for Dr. Atkinson.



"If we could give every individual the right amount of nourishment and exercise, not too little and not too much, we would have found the safest way to health."

-Hippocrates c. 460 - 377 B.C.



Seminar Presentations Fall 1999

Sharon Donovan, Ph.D., Director, Division of Nutritional Sciences, UIUC. "Welcome and a Look to the Year Ahead"

Michael Murphy, Ph.D., Associate Professor, Dept. Animal Sciences; Kelly Tappenden, Ph.D., Assistant Professor, Dept. FSHN; and Jeffery Woods, Ph.D., Assistant Professor, Dept. Kinesiology. "Overview of Research in My Laboratory"

Adrienne Perlman, Ph.D., Associate Professor, Dept. Speech & Hearing Sciences, UIUC. "The Impact of Oral Pharyngeal Dysphagia on Nutritional Status"

Rodney Johnson, Ph.D., Assistant Professor, Dept. Animal Sciences, UIUC. "Anorexia: A Homeostatic Response to Infection"

Students Only. External Advisory Committee/Graduate Student Forum, Dr. Kelly Tappenden, Moderator.

Keith Singletary, Ph.D., Professor, Dept. FSHN, UIUC. "Alcohol and Breast Cancer: An Update."

Norman Millian, Nutritional Sciences Graduate Student. "Can Vegan Diet Meet Vitamin B12 Requirements for Healthy Human Adults?"

Allen Levine, Ph.D., Director, Minnesota Obesity Center, University of Minnesota, Minneapolis. 'Why Do We Eat? A Neural Systems Approach"

Rebecca Stoltzfus, Ph.D., Associate Professor, Div Human Nutrition, Johns Hopkins University School of Public Health, Baltimore, MD. "Effects of Iron and Deworming on Anemia, Growth and Development of Young Children in Zanzibar"

Tom Boileau, Nutritional Sciences Graduate Student. "Androgen Status, Lycopene and Prostate Cancer"

Bo Lonnerdal, Ph.D., Professor, Dept. Nutrition, University of California, Davis. "Recombinant Human Milk Proteins— an Opportunity and a Challenge"

Deshanie Ganessunker, Nutritional Sciences Graduate Student. "Influence of Route of Nutrient Administration on the Intestinal Immune System in the Neonatal Piglet Model"

Claudia Tovar Palacio, Nutritional Sciences Graduate Student. "Soy Protein, Isoflavones and Methionine Supplementation: Their Effects on Lipid Metabolism"

Hwa Young Baik, Nutritional Sciences Graduate Student. "Flavor Characterization of Broccoli Cultivars Differing in Glucosinolates"

Alan Diamond, Ph.D., Associate Professor and Acting Head, Dept. Human Nutrition & Dietetics, UIC. "Selenium-containing Proteins: "Biosynthesis and Possible Role in Cancer Prevention"



Seminar Presentations Spring 2000

Joe Thulin, D.V.M., M.S., Office of Lab Animal Resources, UIUC. "Ethical Considerations in Use of Animals in Research and Teaching"

Michael Murphy, Ph.D., Professor, Dept. Animal Sciences, UIUC. "Publication, Conflict of Interest and Experimentation"

Rick Mattes, Ph.D., Professor, Dept. Foods and Nutrition, Purdue University, West Lafayette, IN. "Fat: Taste, Intake and Metabolism"

Tamas Jilling, M.D., Assistant Professor, Dept. Pediatrics, Evanston Hospital, Northwestern University Medical School, Evanston, IL. "The Role of Epithelial Apoptosis in the Initiation of Necrotizing Enterocolitis"

Gerald Nelson, Ph.D., Associate Professor, Dept. ACE, UIUC. "Economics and Politics of GMOs"

Susan Hutson, Ph.D., Professor, Dept. Biochemistry, Bowman Gray School of Medicine, Wake Forest University, Winston-Salem, NC. "Thoughts on the Regulation of Nitrogen Metabolism: Role of Branched Chain Amino Acids"

Donald Briskin, Ph.D., Professor, Dept. Crop Sciences, UIUC. "Phytomedicinal Chemical Production in St. John's Wort"

Joe Nadeau, Ph.D., Professor, Genetics Dept. Case Western Reserve University School of Medicine, Cleveland, OH. "Genetic Molecular and Physiological Controls of Homocysteine Metabolism in Mouse Models of Human Diseases"

Richard Hill, D.V.M.; Ph.D., Assistant Professor, Dept. Veterinary Clinical Medicine, University of Florida, Gainesville. "Can Diet Affect the Performance of a Racing Greyhound?"

Chaoshen Yuan, Nutritional Sciences Graduate Student. "Phospholipid Transfer Protein (PLTP): Secretion, Gene Expression, and Functions in Cultured Cells"

George Blackburn, M.D., Ph.D., Chief, Nutrition and Metabolism Lab, Beth Israel Deaconess Medical Center, Boston, MA. "Nutritional Oncology: Bridging Animal and Human Studies, A Case Study in Prostate Cancer"

Beth Flickinger, Nutritional Sciences Graduate Student. "Selected Indigestible Oligosaccharides Alter Colonic Microbial Populations and Fermentative End-Products in Animal Models and Humans"

Brian Wansink, Ph.D., Associate Professor, Dept. Business Administration and Dept. Agricultural Economics. "Increasing the Consumer Acceptance of Soy"



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