

FSHN News

The newsletter of the Department of Food Science and Human Nutrition

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Senior Food Science major Shelly Tomlinson had the opportunity to meet with 2007 World Food Prize Laureate Dr. Philip Nelson as he toured the FSHN department on October 16. Tomlinson showed Nelson a poster that featured a product created in last spring's FSHN 412 Product Development course.

World Food Prize winner visits department

World Food Prize winner Dr. Philip E. Nelson visited the Department of Food Science and Human Nutrition on October 16. During his visit, the food scientist from Purdue University had the opportunity to tour the facilities and meet with students and faculty.

Nelson later addressed a crowd in CCUR Theater where he shared his presentation, "A Career With Unexpected World Impact," which discussed his background and achievements in research. Following his remarks, Nelson presented awards to the winners of the Norman Borlaug Student Poster Competition.

"Dr. Nelson showed us how his career evolved from a simple idea to a worldwide impact. He inspired us all to never give up on

our goals and that hard work and dedication can produce enormous results," said Dr. Ruth MacDonald, FSHN department chair.

In an e-mail message to MacDonald following the visit, Nelson expressed his thanks.

"I wanted to thank you for the great time I had at ISU. Student, faculty, and facilities were all 'top notch' and I am sure you are proud of it all. I was impressed with the campus and the rest of my week was magical. Thank your students and faculty for showing me the best of ISU," he wrote.

Nelson was formally recognized at a ceremony at the Iowa State Capitol in Des Moines on October 18. Learn more about his accomplishments on page 12.

FSHN News

The monthly newsletter of the Department of Food Science and Human Nutrition at Iowa State University.

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NEWS NOTE Beirman begins duties as Culinology Coordinator

Since joining the FSHN department on October 15, Erica Beirman has been busy in her new role as coordinator of the proposed Culinology® program. The program was unanimously approved by members of the FSHN faculty but is still awaiting formal approval from the Research Chefs Association.

Beirman is currently establishing a contact list for students and industry leaders who are interested in the Culinology® program and is working to prepare marketing and promotional materials. She has been researching other Culinology® programs and comparing curriculum. Now she is preparing a course syllabus for a new bakery course which Iowa State plans to offer in partnership with ISU Dining's Central Bakery.

"This is very different from my job as a manager in dining services, but I really enjoy the supportive environment and look forward to getting to know everyone in the department," Beirman said. She also enjoys working with prospective students. "In my last job I had a great deal of contact with students and really enjoy working with them," she said.

NEWS NOTE Iowa Center for Research on Botanical Dietary Supplements

The 2007 Iowa Center for Research on Botanical Dietary Supplements External Advisory Council met in Ames on September 26-27. Eight of the Center advisors attended, including Arthur Tucker, Bruce Barrett, David Gangemi, Gailen Marshall, John Dorsey, Kelly Kindscher, Thomas Prisinzano and Trish Flaster.

The 2007 Iowa Center for Research on Botanical Dietary Supplements Fall seminar was given by Dr. Mary O'Connell "Some Like It Hot: Pungency in Capsicums" on October 23.

NEWS NOTE Iowa Hunger Summit

The inaugural Iowa Hunger Summit took place on October 16 at the Des Moines Marriott Hotel. The event united Iowans from across the state in their interest in and efforts toward fighting hunger, both at home and abroad.

(From left) FSHN staff members Cindy Hofmockel, Nancy Holcomb, Brenda Emery, Wendi Young, and Marylou Weigel pose with Cy during the Cyclone Family Weekend Office Decorating Competition on October 12.



Open house will showcase Nutrition and Wellness Research Center

On Friday, November 9, everyone is welcome to visit Iowa State University's new Nutrition and Wellness Research Center (NWRC), located in Building 6 of ISU's Research Park on North Loop Drive, just off Highway 30, for an open house from 3 to 7 p.m.

Starting at 5 p.m., prominent speakers will discuss the importance of nutrition and wellness. They include:

- Iowa's Lt. Governor Patty Judge
- ISU President Gregory Geoffroy
- Dean Cheryl Achterberg of the College of Human Sciences
- Michael Tramontina, director, Iowa Department of Economic Development
- Zoraida DeFreitas, vice president of research and development, Kemin Health
- Michael Budnik, executive vice president of sales, marketing and business development, Proliant Health and Biologicals
- Amy Campos, representing the office of Senator Tom Harkin
- Diane Birt, ISU distinguished professor of food science and human nutrition and interim director of the Nutrition and Wellness Research Center.

Throughout the open house, students will provide tours of the metabolic kitchen, dining areas, conference rooms, laboratories and exercise assessment facilities. There will also be student demonstrations of exercise techniques and healthy eating strategies, and displays related to health and wellness research.

Officials hope to stimulate interest in developing partnerships with area business and industry for future research initiatives at the center through the open house.

"We want to let the community know about this facility and make them aware that we're not another fitness center," said Birt. "This is a center designed to foster consumer and clinical research related to nutrition and wellness. We welcome proposals for partnerships from area business and industry."

Administered jointly by the College of Human Sciences and the Office of the Vice President for Research and Economic Development at Iowa State University, the Nutrition and Wellness Research Center was created to enhance human health and promote the development of food-related industries in Iowa. It is designed to "link" food research to the health of consumers and help move food-related innovations in plant, animal, microbial and food sciences to commercialization. As the NWRC develops, organizers plan to also study factors such as physical activity, which interacts with nutrition to determine wellness.

It is the state's first facility focused on testing foods and food-products for their impact on human wellness and prevention of chronic diseases.



"We do studies in healthy people and look at indicators in them that may correlate to them remaining healthy," Birt said. "We don't study people who have diseases in this center."

The facility will enhance existing research being conducted on campus, specifically from the Center for Crops Utilization Research, Center for Designing Food for Nutrition, and the Center for Research on Botanical Dietary Supplements. Officials are also working with statewide partners that include the other Regent's institutions, established corporations, start-up businesses, hospitals and clinics, and commodity sponsors.

"We also hope to collaborate with Iowa State's planned New Century Farm in the areas of functional foods and nutraceuticals," said Birt.

A grant of \$700,000 from the Iowa Department of Economic Development through the Biosciences Alliance initiated development of the NWRC. Officials plan to make it self-sustaining by bringing in funds from grants, indirect cost recovery on grants, and fee-for-service activities.

Current research being conducted through the center includes ISU investigators Carola Grebitus, Helen Jensen, Jutta Roosen and Joseph Sebranek studying consumer willingness to pay for ground beef when it has different shelf life and colors. Professor of Food Science and Human Nutrition Suzanne Hendrich is also working with an Iowa-based company to develop new markets for a new dietary fiber.

Nutrition and Wellness Research Center

Iowa State University Research Park, Bldg. 6

2325 North Loop Drive, Suite 6100

Ames, Iowa 50010-8281

www.nwrc.iastate.edu

FSHN students receive awards for research presentations at sixth annual Norman Borlaug Poster Competition

Six student winners were selected from among the 18 who presented research on world food issues at the sixth annual Norman Borlaug Lectureship Poster Competition on October 15 in the Memorial Union. Two FSHN students were among the top finishers.

FSHN graduate student Rebecca Lukac (Nutrition) was awarded first place in the graduate competition for her research presentation entitled “The quantitation of ferritin in the seeds of staple crops: ELISA method development.”

“I was a little surprised, but delighted to win and grateful that my efforts had paid off. It was nice recognition of my work,” Lukac said.

Lukac developed an assay for measuring plant ferritin, the storage protein for iron, in several staple crops, including beans, wheat, maize, and rice.

“This method is a useful tool for screening large numbers of seeds that will enable plant breeders to identify and breed ferritin-rich crops with the intent of providing a highly bioavailable iron source to combat iron deficiency anemia,” Lukac explained.

In the undergraduate competition, senior FSHN student Greta Ann Kallevang (Dietetics) was awarded third place for her presentation “The Effect of Beta-Carotene on Iron Bioavailability of Maize Using a Caco-2 Cell Culture Model.” Her research found that beta carotene may increase iron absorption in maize. Kallevang said little research has been done in this area.

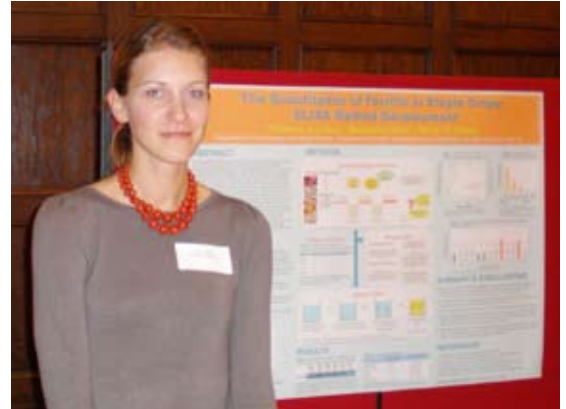
“There have only been two other studies performed pertaining to this idea,” she said. “The results were conclusive that the maize high in beta carotene did have higher iron absorption, but the intermediates created by the mutant (low beta carotene maize) may have also been involved, so there are many more research opportunities ahead of us.”

All winners of the poster competition were recognized by Dr. Philip Nelson, 2007 World Food Prize Laureate, during his visit to the FSHN department on October 16. This had special meaning to the winners.

“It was an honor to meet such a respected person who has had such a worldwide impact on food safety and the nutritional quality of food,” Lukac said.

Prizes of \$100, \$75 and \$50 were awarded to the top three finishers in each competition with funding provided by the College of Agriculture and Life Sciences and the College of Human Sciences.

The competition was sponsored by the FSHN department and organized by Dr. Patricia Murphy. Murphy and the FSHN department would like to thank all students who entered the competition as well as judges Clark Ford, Anne Oldham, Jean Anderson, Christine Hansen, Jim Russell and Steve Lonegren. The assistance of Suzanne Hendrich, Diliara Iassonova, Jose Gerde, Zhiyi Qiang, and Helen Jensen was also appreciated.



Rebecca Lukac, graduate student in Nutrition, earned top honors in the graduate competition.



Greta Ann Kallevang, senior in Dietetics, earned third place in the undergraduate competition.

Graduate competition winners:

- **First Place: Rebecca Lukac**, Nutrition - FSHN, “The quantitation of ferritin in the seeds of staple crops: ELISA method development.”
- **Second Place: Haroon Sseguya**, Sustainable Agriculture and Sociology, “Achieving Sustainable Gains in Food Security: Collaborative Efforts in Kamuli, Uganda.”
- **Third Place: Ariun Ishdorj**, CARD & Economics, “The Importance of Intra-Household Allocation of Food Program Benefits.”

Undergraduate competition winners:

- **First Place: Lisa Wasko and Susannah Stofer**, Horticulture, “Influence of School Garden Program on Ugandan Primary School Pupils’ Home Gardens.”
- **Second Place: Elizabeth Sukup**, Public Service Administration in Ag and International Agriculture, “Dynamics and Impacts of School and Home Garden Participation in Uganda.”
- **Third Place: Greta Ann Kallevang**, Dietetics - FSHN, “The Effect of Beta-Carotene on Iron Bioavailability of Maize Using a Caco-2 Cell Culture Model.”

Learning Community members pick apples at Horticulture Farm for service learning project

Twenty-three student members of the Food Science and Human Nutrition Learning Community picked apples at the ISU Horticulture Farm on September 28 as part of a service learning project.

The students joined Academic Advisor Anne Oldham, Clinician Janet Johnson, and peer mentors Nettie McGuire and Megan Mier in the project. The group spent the afternoon picking apples which will later be cleaned, sorted and donated to local facilities of their choice.

As peer mentors, senior Nettie McGuire (Dietetics) and sophomore Megan Mier (Dietetics) provide assistance and lead activities for FSHN Learning Community students. McGuire said picking apples at the Horticulture Farm gave students in the learning community an opportunity to participate in a service learning project and “experience the satisfaction a volunteer opportunity can bring.”

Freshman Guinness Gerlock, a Food Science and Technology major, enjoyed participating in the service learning project.

“Picking apples with my learning community was a fun bonding experience, and we loved tasting the apples,” she said. “I think it will be really great to go back to sort and distribute the apples to the organization we choose.”

The FSHN Learning Community provides an opportunity for students with interests in food and nutrition careers to make meaningful connections both in and outside the classroom with their peers and departmental faculty. Freshmen students can participate in a variety of social, professional, and service learning opportunities during the year.

For Gerlock, the FSHN Learning Community has been a great way to make connections.

“The learning community has helped introduce me to other freshmen Food Science and Human Nutrition majors as well as two peer mentors who have great



Photo courtesy of Anne Oldham

Members of the FSHN Learning Community picked apples at the ISU Horticulture Farm for a service learning project on September 28.

advice for my time at Iowa State,” she said. “After meeting FSHN professors and being in the learning community, I am so excited for the four years.”

From her perspective as a peer mentor, McGuire said this year is off to a great start.

“We have been able to meet a lot of the students through social activities and academic trips,” she said. “We have had small group sessions since our learning community is very large, and this has allowed us to know the students on a personal level.”

The peer mentors have also started a study session for Biology to provide additional help for students who are finding the class to be difficult.

McGuire said the members will travel to Des Moines on November 8 to take a tour of Tone’s and Blank Children’s Hospital followed by supper at Olive Garden.



Learn more about the FSHN Learning Community online at www.fshn.hs.iastate.edu.

Retirement reception honors service of Jane Meyer



Jane Meyer

After many years at Iowa State University, FSHN office coordinator Jane Meyer has retired as of October 31. To celebrate Jane's service to Iowa State, the FSHN department hosted a retirement reception on October 29.

Members of the department purchased a gift certificate to Works of Glass, which Jane says will come in handy for her stained glass projects.

"Jane has been an important part of the FSHN team for many years and she will be greatly missed," said Dr. Ruth MacDonald, FSHN department chair.

Jane said she has made lifelong friendships at Iowa State. In 2005, she received the Merit Staff Outstanding Service Award from the College of Family and Consumer Sciences.

The FSHN department congratulates Jane on her retirement and wishes her the best in the future.



Jane Meyer (center) was honored by the FSHN department at a retirement reception on October 29.

Marylou Weigel will be missed after 21 years



Marylou Weigel

Twenty-one years after joining the FSHN department, account clerk Marylou Weigel has retired.

"She has certainly made a major contribution to FSHN since starting with us in 1986 and will be missed," said Dr. Ruth MacDonald, FSHN department chair.

Marylou first worked as a clerk typist in the Purchasing Department at Ames Lab. In the FSHN department, Marylou has been responsible for managing purchase orders, travel reimbursements, building and equipment repair requests, copier

maintenance, and other duties.

Marylou said she is looking forward to new adventures and less stress. When asked what she will miss most, Marylou responded, "What can I say -- the faculty, staff, and students and their enthusiasm."

She will be taking many happy memories with her. "I hope the department continues to strive and grow throughout the years," she said. "It's grown a lot already, but there's always room for more growth. Good luck to you all!"

The FSHN department wishes Marylou the best

Faculty/Staff Update

Achievements, Awards, and Appointments

Dr. Ruth MacDonald, FSHN chair, will serve on the Iowa Economic Development Board, which will take over functions formerly performed by the Values Fund Board. The IEDB will work closely with industry and "play a pivotal role in transforming Iowa's economy," according to its web site.

Dr. Byron Brehm-Stecher was recently appointed to the Institute of Food Technologists "Scientific Reports and Emerging Issues Committee."

Dr. Byron Brehm-Stecher's lab was recently awarded a three-year grant from PolyMedix, Inc. (Radnor, Pa.) entitled "Biomimetic polymer-based antimicrobial systems: development and applications."

Dr. Byron Brehm-Stecher's lab was recently awarded a one-year grant from Van Beek Natural Science (Orange City, Iowa). The grant, administered through IPRT Company Assistance will examine the antimicrobial activities of select essential oils toward their eventual use in veterinary care products.

Recent Publications

Dr. Byron Brehm-Stecher authored a book chapter entitled "New technologies for imaging and analysis of individual microbial cells" in "Imaging Cellular and Molecular Biological Functions" (Shorte, S.L. and F. Frischknecht, eds.; Springer) to be published December 2007.

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Faculty/Staff Update

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Meetings, Participants, Presentations, and Visits

Jean Anderson MS RD LD, **Anne Oldham** MS RD LD, **Eunice Bassler** MS RD LD, and **Dr. Cheryll Reitmeier** were the authors of a poster session on electronic portfolios at the Food and Nutrition Conference and Expo (FNCE) in Philadelphia on September 30. The title of their poster was “Assessment of Student Learning Using Electronic Portfolios in a Didactic Program for Dietetics and in a Dietetic Internship.” This meeting was attended by over 10,000 Registered Dietitians and nutrition professionals.

Jean Anderson MS RD LD was a co-author together with presenters from Montana State University for a poster session on “The Future of Dietetics Practice: Teaching the Nutrition Care Process and Standardized Language” on September 30 at FNCE.

Jean Anderson MS RD LD and **Anne Oldham** MS RD LD attended a workshop on Applying CADE Standards and Using Outcomes to Drive Program Improvement and Learning September 30 at FNCE. Anderson and Oldham also attended the workshop on Dietetics Education Accreditation Standards: Keeping Up with the Times.

Jean Anderson MS RD LD and **Laurie Kruzich** MS RD LD represented Iowa State University in the Student Recruitment Fair at FNCE which attracts hundreds of dietetic undergraduates.

Jean Anderson, MS RD LD, attended the House of Delegates Meeting for the American Dietetic Association and received up-to-date reports from the Phase 2 Future Practice and Education Task Force on Future Practice and Education in 2017.

Dr. Diane Birt participated in the NCCAM/ODS Center Directors meeting and presented an overview for the Iowa Botanical Research Center in Bethesda, Md., on July 18-20.

Dr. Diane Birt chaired the External Advisory Committee meeting of the Memorial Sloan Kettering Cancer Center Botanical Research Center meeting on August 28-29 in New York City.

Dr. Diane Birt participated in an Innovations Point Workshop for Hill's Pet Foods in Kansas City on September 11.

Bledar Bisha, PhD candidate in Byron Brehm-Stecher's laboratory, was invited to present three posters at the 27th annual “Current Concepts in Foodborne Pathogens and Rapid and Automated Methods in Food Microbiology” workshop October 21-24 at the University of Wisconsin-River Falls.

Dr. Byron Brehm-Stecher presented a talk on rapid detection of foodborne pathogens as part of a NATO workshop on “Food Safety and Security: Global Holistic Approaches for the Future and Environmental Impacts” in Galati, Romania, September 4-6. Other FSHN faculty presenting included Lester Wilson, Aubrey Mendonca, and Sam Beattie.

Dr. Byron Brehm-Stecher recently presented a talk on “Biomimetic polymer-based antimicrobial systems” at the Annual Meeting of the American Chemical Society in Boston, MA.

Dr. Byron Brehm-Stecher attended a USDA/CSREES grant writing workshop in Washington, D.C., October 9-10.

Dr. Stephanie Jung presented at the NC1023 meeting “Improvement of Thermal and Alternative Processes for Foods” October 1-2 at State College, Pennsylvania State University.

Dr. Stephanie Jung is involved in the ISEKI_MUNDUS project, which recently received a grant to foster the internationalization of and enhancing the quality of the European higher education Food Studies. With 113 partners from five continents, the one-year project will work to promote good communication and understanding between European countries and the rest of the world. Meetings will take place in Austria (Vienna, January 4-5), Brazil (April) and Porto (September).

Laurie Kruzich MS RD LD, Dietetic Internship Practicum Coordinator, attended a workshop on Real World Application of the Nutrition Care Process, Evidence Based Practice Guidelines and Toolkits on September 30 at FNCE.

Dr. Ken Prusa and **Dr. Larry Johnson**, were interviewed by a television crew on October 19 for a documentary directed by Emmy award-winner Robert Kenner. In the interviews, Prusa demonstrated how he measures the pH and color of meat in the sensory evaluation lab. Johnson demonstrated wet corn milling and discussed changing trends in food products. Another television crew recently shot footage of Prusa for a Modern Marvels program about pigs that will air on the History Channel. Johnson was also filmed for a program on corn.

Dr. Lester A. Wilson served as co-director of the Advanced Research Workshop on “Food Safety and Security: Global Holistic Approaches for the Future and Environmental Impacts,” September 4-6, in Galati, Romania. The main objective of the workshop was to critically assess and develop food safety, security and environmental systems for Romania, neighboring countries and the food chain beyond their borders (NATO, NATO partner and/or EU countries). Participants from the U.S. and numerous central European countries shared expertise and viable solutions which will be monitored, communicated and disseminated to the local authorities, food industries and consumers.

Dairy Industry alumni reunite during Homecoming

By William LaGrange
Professor Emeritus
Food Science and Human Nutrition

Dick Teegen, Carl Zurborg and I decided that the ISU Homecoming on October 19 and 20 would be a good time to invite back to ISU graduates of the Department of Dairy Industry from the classes 1950 through 1955.

I obtained a list of the grads from that era and we wrote them concerning this proposed event. Several wrote saying they or their wives were not up to making the trip but eleven of us did make it to Homecoming. They came from Connecticut, Texas, Tennessee, Florida, Illinois, and Iowa. Several wives also came and some were ISU grads as well. We met at the Gateway Hotel where several had booked rooms for the event. Friday night the 19th we had dinner together and shared our experiences over the years since graduating from Iowa State.

It was a most enjoyable evening with many memories and work experiences shared as well as bragging about grandchildren. Saturday morning we were invited to the Food Science Building (officially the Dairy Industry Building as far as we are concerned) to enjoy a breakfast provided by Dr. Ruth MacDonald, FSHN chair. Dr. Lester Wilson, Food Science Club advisor and three students also attended.

After breakfast we adjourned to



Alumni of the Department of Dairy Industry returned to campus October 19 and 20 for a special Homecoming gathering. Front row (left to right): FSHN professor Lester Wilson, Mel Meling, Dorothy Demeter, Bob Sanders, Bill Sandine, Jim Best, and FSHN Chair Ruth MacDonald. Back row: Carl Zurborg, Bill LaGrange, Fritz Massaquoi, Ed Reddington, Dick Teegen, and Bob Jacobson.

the auditorium for a review of current departmental programs and activities. Then we toured the building seeing some of our old haunts and noticing the major building changes that have taken place since the early 1950s.

Then off to the ISU Alumni Tailgate to eat some more food for those of us who limited our breakfast to just one serving. Most all had tickets to the ISU-Oklahoma football game that we just about won. After the game most of the group scattered

but a few stayed around for more visiting. All reported having a fun time and even though we would like to get together again most realized, because of our age, we won't make another ISU Homecoming.

Editor's note: William (Bill) LaGrange was a 1953 Dairy Industry graduate. He served Iowa State for 38 years as a faculty member of the dairy industry department (dairy and food science) and Iowa State extension service.

Dairy Industry alumni share their stories

Editor's note: Several Dairy Industry alumni were willing to share their stories with FSHN News. The following profiles provide a snapshot of the lives of these special members of the Iowa State family. A special thanks to the alumni for their contributions.

● Edwin R. Reddington, Jr.

Born: Raytown, Mo.
Dairy industry Class of 1952

Edwin's first job was working in the Evaporated Division of Carnation Milk in Northfield, Minn. After three months, he was drafted into the Army and spent the next two years in the U.S. Army Veterinary Food Inspection Service based in Madison, Wisc. He then spent 16 years working for Borden Milk and Ice Cream Division.

He later worked for the Kenzade Division of Eco Labs in southeastern Wisconsin

where he worked in tech sales and the service of cleaning systems and chemicals to the food industry for two years.

For the next 15 years, Edwin worked for Echo Lake Farm Produce in Burlington, Wis., where he was Plant Superintendent of liquid and frozen egg products.

Edwin's wife Marjorie Wiltse is a 1953 graduate of Home-Ec Education. Together, they have traveled extensively in the United States and the world and are still enjoying their travels. For the past 44 years, the couple has resided in their home, which is Frank Lloyd Wright design, located in Waukesha, Wis.

Dairy Industry alumni share their stories (continued from page 7)

● William (Bill) LaGrange

Born: Ames, Iowa

High School: Ames High School

Dairy Industry Class of 1953

Bill was born in Ames in 1931. He graduated from Ames High School in 1949 and enrolled at Iowa State. His father was Professor of Animal Husbandry at Iowa State, but Bill decided his lack of farm experience meant a different course of study since Iowa State was the school of choice for the family. He chose Dairy Industry after working for Moore Dairy in Ames after high school graduation. He enrolled in the Department of Dairy Industry and graduated in June of 1953. During summer months he worked for

Moore Dairy, O'Neil Dairy in Ames and Sanitary Farm Dairy in Cedar Rapids.

He served two years as an officer in the U.S. Air Force. He then became a graduate student in dairy microbiology under the tutelage of Dr. Gene Nelson and graduated in 1959 with a PhD. He joined the faculty at the University of Kentucky as Extension Dairy Technologist. In 1962 Bill returned to ISU as Extension Food Scientist and Professor. While at Iowa State he was active on various campus organizations including chairman of the Athletic Council and on the Faculty Council.

Bill was a visiting professor in 1975 at the Institute of Food Technology, Campinas, Brazil. In 1986 he and his family lived in Cork Ireland for six months

at University College Cork and worked as a visiting professor.

He has been active in the American Dairy Science Association, Institute of Food Technologists (Fellow 1992), International Association for Food Protection (Educator of the Year 1992 & Life Member 2006). He also was the Scientific Editor of IAFP's Food Protection Trends (1996-2003). He authored several ISU Extension publications, four book chapters, and three training video tapes for food processors.

Bill is active in Rotary, Ames Foundation, Ames Public Arts Commission, and Ames Trees Forever. Bill and wife Laura have four daughters and four grandchildren.

● James J. (Jim) Best

Born: Milwaukee, Wis.

High School: Mason City, Iowa

Dairy Industry Class of 1952

Jim's favorite memories of time at Iowa State include working in the college dairy market milk lab. He also appreciated the instructor's availability to students and the small, closely-knit classes.

"All of school was a wonderful experience at the right time and place in my life. I carry the memories with me all the time," he said.

Thirteen days after graduation, Jim was drafted into the Army and spent 13

months in Korea. He returned to Iowa and began work with Marathon Paper as an Industry Specialist in the packaging of dairy products.

"We developed the materials and the system for gas and or vacuum packaging. The gases were nitrogen, carbon dioxide and or mixtures of the two. This was for retail cuts as well as for 40-pound blocks," Jim said.

Marathon Paper was bought out by American Can in 1957, and seven years later Jim was transferred to New York City where he became the Director of Food Packaging.

Jim's product development group

worked with another research lab to develop the first commercial "easy open tin plate end can." They also developed a process for the vacuum packing of retail cuts of fresh red meat.

Jim then spent three years as Regional Sales Manager in the North East Region before retiring after 35 years with American Can. He then worked for James River as a Regional Manager and retired in 1995.

Jim and his wife are now retired and live in Bethel, Conn., where they enjoy gardening and traveling. They have a daughter, two sons and five grandchildren.

● Melvin L. (Mel) Meling

Born: Rochelle, Ill.

High School: Rochelle Township HS

Dairy industry Class of 1952

Melvin entered Iowa State with little money and left four years later with a degree in Dairy Industry, an Officer's commission in the Air Force and no debt.

"Needless to say, most of my memories are of work and trying to keep my head above water," he recalled. "I did manage to make many lasting friendships, and some of my pleasant memories are related to football. Home games were an excuse for my future wife to come to Ames."

Melvin admitted he doesn't use much of the nine quarters of chemistry he took at Iowa State, but said, "I am sure the discipline learned in my four ISU years have benefited me in many tangible ways."

Melvin's career history includes the U.S. Air Force (1952-55), the Davenport Iowa Health Department (1955-57), and Model Dairy in Davenport, Iowa (1957-59).

After 25 years in the fastener industry, the manufacturer and selling of bolts and nuts, Melvin started his own business in 1983 (Valley Fasteners, in Batavia, Ill.).

"I sold the business in 1995," he said. "It was most rewarding to me and my family."

Melvin and his wife currently live in Batavia, Ill., for seven months and in Seminole, Fla., the balance of the year.

"I am happy to say my wife and I have been married for nearly 56 years," he said.

Their son, an environmental engineer lives in Gainesville, Fla., with his wife and two sons.

Their daughter, a medical doctor, lives in Grand Rapids, Mich., with her husband and two daughters.

"I travel as much as time allows. Bicycle riding keeps me in decent shape," Melvin said. "I have done the RAGBRAI ride, two weeks in Provence, France in 2007 and will ride from Munich to Vienna in 2008."

Dairy Industry alumni share their stories (continued from page 8)

● Fritz Massaquoi

Fritz was originally from Liberia and returned there after graduation. He worked for a year with UNESCO at the Fundamental Education Center in Clay (a tribal village just outside of Monrovia, the capital city of Liberia). In this role, he educated farmers to help them cope as they took their produce to market. Women were also taught fundamental household duties and health care.

Fritz then worked for LAMCO, a Swedish American Liberian Mining Company, for 25 years. His work began in the Personnel Department in Liberia. He was later transferred to the head office in Stockholm, Sweden, where he was part of the team interviewing those interested in employment in Liberia. He was later called back to Liberia and his duties eventually shifted to the Industrial Relations

Department followed by serving as the Counterpart to the head of Community Services.

“Here I was preparing and assigning houses to families as they came to begin their employment,” Fritz said.

He was then transferred to the Recreation Section of the Administrative Department and suggested developing activities for employees to do after work.

“... after sending out memos asking for hobbies and special interests, we got clubs going (golf, swimming, skeet shooting, bridge) and then a hobby center for the housewives since they were not allowed to work,” Fritz explained.

“A Swedish couple was employed to run the hobby center teaching, weaving, photography, ceramics, woodworking, batik and silk screening. When their contract was over and the request was sent to Stockholm for a replacement, the reply

came back that since I had suggested this I should be the replacement.”

Aside from a little modeling he had done, Fritz knew nothing about art and said he could not handle this assignment.

“This was not accepted so I was sent back to Stockholm and had a study tour of hobby centers, and after that I had a semester at California College of Arts & Craft in Oakland. I then returned home and took over the Recreation Section. I did return to Oakland every other summer until I obtained a Teaching License.”

Fritz said that even though he did not pursue his education and training, he has not forgotten about his years at Iowa State.

“I have carried the warmth and friendliness of classmates and dormitory mates all these years,” he said. “After all, Iowa State was my home away from home.”

● Dorothy (Renter) Demeter

Birthplace: Freeport, Ill.
High School: Lena High School
Dairy Industry Class of 1953

Dorothy was the only woman in the Dairy Industry program. Her favorite memories of Iowa State include VEISHEA, football games, Pep Club, Dairy Club, singing groups and church programs.

“I made many life long friends at Iowa State and really enjoyed my years at the College,” she said. “It was strict in the years I attended and made me think and study hard but it was well worth it.”

After graduating from Iowa State, Dorothy received further education through dairy programs presented at the University of Wisconsin, USDA meetings in Chicago and Food Displays at the Illinois State Fair. Through the years Dorothy has met and worked with many people supporting many organizations, such as Swiss Colony, Hickory Farms and others who would call and ask for special items for a party.

Dorothy currently lives in Lena, Ill., where she is a member of the Lena Historical Society, Lena Women’s Club, St. John’s Women’s Society, Lena Home Extension Club. She is also a member of the Historic Cheesemaking Center in Monroe, Wis.

Dorothy’s son James T. Demeter in Wis. has a Master Cheesemaker Award and has received awards for Feta Cheese. Another son, Fred Demeter, works at the Kolb-Lena Bresse Blue Inc. plant near Lena, Ill.

● Dr. William E. (Bill) Sandine

Dairy industry Class of 1951

While in college, William apprenticed during the summers on an ice cream bar tank at Beatrice Foods in Des Moines and at a Kraft Foods Cheddar cheese plant in Paoli, Ind.

William was a member of the ISU all products championship dairy products judging team of 1950. After graduating in 1951, Bill was employed by Flynn Dairy in Des Moines making cottage cheese before being called to the service.

He was recipient of a scholarship for graduate studies at North Carolina State University where he obtained an M.S. degree in 1955 after spending two years in the U.S. Air Force as a commissioned officer.

After receiving a Ph.D. degree in Microbiology from Oregon State University (OSU) he did post-doctoral research in the Dairy Science Department at the University of Illinois. Then he joined the faculty at OSU, reached the rank of Distinguished Professor of Microbiology, and retired in 1996. While at OSU he and his 78 graduate students published over 200 scientific papers in peer-reviewed journals. Twenty-two patents were granted as a result of research conducted in his laboratories.

Dr. Sandine received numerous research awards, was a member of several professional societies and in 1994 he was president of the American Dairy Science Association.

In 2007 he was honored by the OSU Alumni Foundation as an Alumnus Fellow for outstanding achievements and contributions to society.

Dairy Industry alumni share their stories (continued from page 9)

● Robert L. (Bob) Sanders

Born: Gilbert, Iowa
Dairy Industry Class of 1950

During his junior and senior year in high school, Robert got a job and worked in the Iowa State College dairy plant. He then enlisted in the US Air force.

“By the time he was 18, the war was over and they did not need pilots so they made a cook out of me,” he said.

While stationed in Washington, D.C., Robert met his wife, Grace, who was stationed there. They married and served in the Air Force before returning to Iowa. Robert started working again with the College Dairy, this time in the cheese department. He started courses at Iowa State the next term (September 1947) and continued working in the cheese lab until graduation in 1950.

“My next three years were with Kraft Cheese Co. Working in Tiskilwa, Manlius

and Toulon, Illinois,” he recalled. “I left Kraft in September 1953 and took a position with the City of Des Moines, Iowa, as a milk inspector.”

A few years later, Bob was appointed Chief Milk Sanitarian. He joined the Iowa Milk Sanitation Association and served in several positions before moving to the State Health Department as a State Milk Sanitation Rating Officer. He joined the United States Public Health Service as a reserve Officer and was called to active duty in 1963 where he was assigned to the Chicago regional office.

He received a Masters of Public Health degree at the University of Michigan and was then assigned to the regional office in New York City.

“In 1972 I was transferred to the headquarters office in Washington D. C. where I worked for the next 20 years,” Bob said. He worked with the regional specialists in standardization and

other matters and assisted in teaching milk sanitation courses to state and local sanitarians. Most of his years in Washington were spent as Deputy Chief and Acting Chief of the Milk Sanitation Branch. He was responsible for the review and revisions of the 3-A Sanitary Standards and was the primary author of the revised Grade A Pasteurized Milk Ordinance in 1978 and 1981, which added the provisions for Aseptic Milk and Milk Products, and later revisions up to 1991 when he retired.

From 1985 to 1991 Bob served on the board of IAMFES, now IAFP, and was President in 1990. He retired in 1992 and moved to Pensacola, Fla.

“I have continued my work on committees and other positions with IAFP and have served on the Board of Directors of the 3-A Symbol Council until its being dissolved this year in 2007.”

Alumni Update

Harris honored for service

Keecha Harris, B.S. Dietetics '96, received the Helen LeBaron Hilton Award from the College of Human Sciences on October 19 at the 2007 Iowa State University Alumni Association Honors & Awards Ceremony.

The award was established in 1976 to recognize graduates who are nationally and internationally recognized for their community leadership, meritorious service, or distinguished achievement in the areas of family and consumer sciences.

In only 11 years since earning a bachelor's degree, Harris has risen in her profession to serve as a national spokesperson for the American Dietetic Association, an internationally recognized nutrition columnist for www.msn.com, and faculty member at the University of Alabama at Birmingham. She now resides in Sterrett, Ala.

As president of Keecha Harris and Associates, a consulting firm, she also provides expertise in food systems, nutrition, and health for nonprofit and corporate organizations as they develop multimillion dollar childhood obesity prevention initiatives.

As a W.K. Kellogg Foundation Food and Society Policy Fellow, Harris developed an integrative focus on environmentally sustainable nutrition policies that serve low income populations. Her work focuses on effective public and



Keecha Harris (center) recently received the Helen LeBaron Hilton Award from the College of Human Sciences. Harris is pictured with FSHN department chair Ruth MacDonald (left) and FSHN professor Suzanne Hendrich.

interpersonal communications related to diet-related sciences and policies.

She embodies the Iowa State University ideal of “science with practice” as well as the College of Human Sciences’ vision of “expanding human potential.”

Food scientist recognized for food processing and storage innovations

Days after visiting Iowa State's FSHN department, Dr. Philip E. Nelson was formally honored as the 2007 World Food Prize winner on October 18 at the Iowa State Capitol in Des Moines. Nelson was recognized for his innovative breakthrough technologies which have revolutionized the food industry, particularly in the area of large-scale storage and transportation of fresh fruit and vegetables using bulk aseptic food processing.



Dr. Philip Nelson

Nelson has been involved in the storage and packaging of food since childhood. He spent his early years working on his family's tomato farm and canning factory in Morristown, Ind., and once earned the crown of "Tomato King" at the Indiana State Fair.

This experience greatly influenced Nelson's early research. He decided to explore ways to improve tomato processing methods, drawing on his years of experience in his family's canning factory. He knew that any successful methods that could be discovered and implemented to prevent post-harvest spoilage would be of great value to the food processing industry and the consumer.

Noting that tomatoes were one of the world's most processed food products, Nelson wondered if they could be stored aseptically (pathogen free) in tanks at ambient temperatures for a long period of time without becoming contaminated or spoiling. His hope was that, by being able to hold large quantities of the product to a date beyond harvest and then process it at intervals throughout the year into various products (sauces, juices, ketchup, etc.), he could help the tomato industry become less seasonal while maintaining and enhancing the nutritional content and flavor of the final product.

Nelson's research led to the discovery of methods and equipment to preserve perishable food at ambient temperatures in very large carbon steel tanks (beginning with 100 gallon tanks and increasing in capacity to 8 million gallons). By coating the tanks with epoxy resin and sterilizing the valves and filters, food products were able to be stored and removed without reintroducing contaminants. As a result, enormous quantities of pathogen-free food could be distributed around the world for final processing and packaging.

Later partnering with the Scholle Corporation, Nelson developed a low-cost aseptic "bag-in-box" system for preserving and shipping foods. By the 1980s, this technology had spread throughout the global food industry. Working with another company, Nelson engineered a variation of the bag sealing fitment as a membrane, which ruptures during the fill and then reseals with a sterilized foil cap. This is now the standard technology used for processing and packaging of aseptically processed foods worldwide.

In the developing world, these technologies have made it affordable and convenient to transport and deliver a variety of safe food products without the need for refrigeration, averting loss due to spoilage. As Nelson's pioneering technology began to be used in many developing countries, it became evident that by making possible the economical and safe delivery of nutritious food to the poor and undernourished of the world, Nelson's achievements resulted in significantly increasing the availability and accessibility of food.

Citrosuco, a leading orange juice producer based in Brazil, has used the technology developed by Nelson to ship up to 8 million gallons of orange juice to the U.S. and Europe. The technology has also been applied to bring potable water and emergency food aid to survivors of the 2004 tsunami in Southeast Asia and the victims of Hurricane Katrina in 2005, as well as to other crisis situations worldwide, and is used in school nutrition



The 2007 World Food Prize



Photo courtesy of The World Food Prize

The discoveries of Dr. Philip Nelson have made major contributions to the availability of nutritious foods worldwide.

programs in developing countries.

Nelson has come to be recognized as the leader of modern food science and technology. In its 1991 assessment of the top 10 innovations in food technology, the Institute of Food Technologists (IFT) rated aseptic processing and packaging as Number One, above juice concentrates, safe canning processes, freeze drying and food fortification. Nelson was awarded IFT's prestigious Nicholas Appert Award in 1995 and would go on to serve as IFT president from 2001 to 2002.

In addition to his scientific discoveries, Nelson has also built one of the largest and most recognized food science departments at Purdue from 1983 to the present. Over the past 23 years, thousands of professionals have participated in workshops in aseptic processing developed and led by Nelson.

Information obtained from The World Food Prize at www.worldfoodprize.org.

Upcoming Events

- Wednesday, November 7** FSHN Seminar, 4:10 p.m., 1210 LeBaron Hall: “Candidate Adipocyte Growth Regulators with Surprising Co-Expression in Peripheral Neurons: a Link between Environmental Cues, Metabolism, and Tissue Plasticity?” presented by **Sean Adams**, Research Physiologist, U.S. Department of Agriculture.
- Wednesday, November 7** Documentary Film, 6:30 p.m., 1210 LeBaron Hall: “King Corn, One acre of corn tells the story of the crop reigning over the American countryside and the American diet,” 80-minute film, no cost to attend. A discussion by filmmakers Curt Ellis and Aaron Woolf will follow. They will discuss their bumper crop on one acre of Iowa soil and follow it through the food system.
- Friday, November 9** 3 to 7 p.m., Nutrition and Wellness Research Center (NWRC) Open House, located in Building 6 of ISU’s Research Park on North Loop Drive, just off Highway 30 in Ames.
- 3 to 5 p.m. Tours and Activities
 - 4:30 p.m. City of Ames Ribbon Cutting Ceremony
 - 5 to 6 p.m. Speaker Presentations, featuring Lt. Governor Patty Judge, Iowa State University President Gregory Geoffroy and more.
 - 6 to 7 p.m. Hors d’oeuvres and beverages
- Wednesday, November 14** Seminar, 4:10 p.m., 1210 LeBaron Hall:
- “The Quantitation of Ferritin from Staple Crops: Ferritin Extraction and ELISA Method Development,” presented by **Rebecca Lukac**, Masters Student in Nutrition
 - “Chemical & Sensory Characterization of Oat Bran from Experimental Oat Lines with Different Amounts of Total Beta-Glucan,” presented by **Krishna Miller**, Masters Student in Food Science Technology
 - “Evaluation of the Iowa Expanded Food and Nutrition Education Program and Family Nutrition Program,” presented by **Justine Hoover**, Masters Student in Nutrition
- Thursday, November 15** “Molecular Catalysis on Surfaces,” presented by L. K. Doraiswamy Lecturer **Dr. Bruce Gates**, University of California - Davis. 11 a.m. 171 Durham
- Monday, November 19 to Friday, November 23** Thanksgiving break, classes recessed
- Thursday, November 22 and Friday, November 23** University holidays, offices closed
- Monday, November 26** Classes resume
- Wednesday, November 28** Seminar, 4:10 p.m., 1210 LeBaron Hall: “Starch Digestibility and Technology to Produce Low-Digestible Starch,” presented by **Jovin Hasjim**, Ph.D. student in Food Science Technology
- Wednesday, December 5** Seminar, 4:10 p.m., 1210 LeBaron Hall: “Educator Perceptions in Nutrition Programs,” presented by **Onikia Esters**, Ph.D. student in Nutrition
- Thursday, December 6** Annual Food Science and Nutrition Club Potluck and Silent Auction



Submit upcoming events to
fshnnews@iastate.edu.