

FSHN News

The newsletter of the Department of Food Science and Human Nutrition

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Lessons from Around the World

Seven students had the experience of a lifetime May 14 – June 14, 2008 as they traveled to the southern part of India with Dr. Manju Reddy to gain exposure to global nutrition issues and a view of how policy makers in other parts of the world are working together to deal with those issues.

The group's major objective was nutrition lessons, which they found everywhere. Reddy, who has only taken students to India once, said the group learned about "local foods and their nutritional values by visiting grocery stores." Students toured daycare facilities and schools where they assessed nutritional status, according to Reddy.

Students not only heard but saw how closely "non-governmental agencies and the community work together" said Reddy. They participated in a farmer's field school run by the organization Agriculture, Man and Ecology, designed to train farmers in using the naturally growing Neem seed extracts.

In addition, they considered environmental issues. Villages provided examples of sanitation and water harvesting as well as a view of dams and hydroelectric power.

The travelers from ISU also experienced a bit of Indian culture. They visited a "huge historical palace in Mysore once lived in by

an Indian king," said Reddy and enjoyed local dancing with villagers. Students ate roasted peanuts with brown sugar and tender coconut water and coconut flesh offered by villagers. Reddy said the student's favorite part seemed to be "interacting with the villagers, especially children."

Though the trip was a success, Reddy has big plans. In the future she would like to include more information and visits regarding nutritional and health related programs, like HIV.



Amanda Blake, Erica Lensink, Molly McHenry, Amanda Newman, Amber Newman, Erin Richter and Aleson Teichroew made the journey to India with Dr. Manju Reddy.

Wilson Named IFT Fellow

Though the announcement came months ago, Lester Wilson, University Professor, was officially made a Fellow of the Institute of Food Technologists (IFT) in an awards celebration at the Annual Meeting on June 28, 2008.

This professional distinction, conferred for outstanding and extraordinary contributions in the field of food science and technology, has been nearly 40 years in the making for Wilson. “A wonderful honor that really means a lot,” he said of receiving the award.

Wilson, who joined IFT as a student, has been active in the IA Section, Regional IFT programs, Quality Assurance Division and Career Guidance at the national level.

Through IFT, Wilson has had the chance to “interact with a variety of people in the profession, see what others do in their classes.” Those interactions have led to project collaborations and industry contacts.

Wilson began his long teaching career as a TA. After getting good reviews, he pursued the profession and now, those experiences are some of his favorite memories. “I love interacting with students, seeing them succeed, watching their career and bringing them back to ISU to share,” said Wilson.

In his career, Wilson has conducted research on the influence of processing and food chemistry on food quality and consumer acceptance. He was selected as a NASA Faculty Fellow the summers of 2003-

06 and his work was used to produce soy-based foods for manned missions to Mars and the moon. More recently, he was co-director of a NATO Food Safety and Security Advanced Research Workshop in Romania.

The best advice Wilson could give is to “become a member of IFT. Use all the resources like webinars and networking offered.”

The nominee must have been an IFT Member for 15 years and a Professional Member at the time of nomination. Past winners include industry representatives as well as those from academics.

Congratulations Dr. Wilson!



2008 IFT Fellow, Lester Wilson

FSHN News

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

Department Chair:
Dr. Ruth MacDonald

Associate Chair:
Dr. Cheryll Reitmeier

Newsletter Editor:
Breanna Wetzler

Contact Us

Send news, photos, ideas, and suggestions to fshnnews@iastate.edu.

Department of Food Science and Human Nutrition
Iowa State University
2312 Food Sciences Building
Ames, IA 50011-1061

Phone: 515/294-3011

Fax: 515/294-8181

Web: www.fshn.hs.iastate.edu

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■ Dr. Sam Beattie says in a June ISU Extension article that in an emergency, disinfect drinking water by boiling or chemical treatment. “Boiling water is the preferred disinfection method,” he said and gave tips to those battling unsanitary water supplies following the spring floods.

■ The College of Human Sciences has established its first endowed professorship, the Virginia M. Gladney Professorship in Food Science and Human Nutrition, made possible by a bequest from the estate of ISU alumna Virginia Gladney. This professorship will allow the department to attract and retain a nationally recognized faculty member focused on the advancement of food science and human nutrition, and enhancing the education of students.

■ Dr. Ruth Litchfield talked about the many factors that go into how food is made and its nutritional values, in an August article of the Waterloo Cedar Falls Courier.

■ A new B.S. program in culinary science received final approval from the Board of Regents, State of Iowa, on June 12. The major combines courses in food science and human nutrition with classes in hotel, restaurant, and institution management to cross-educate students as both food scientists and chefs.

■ Wine lab supervisor of the Midwest Grape and Wine Industry Institute, Dr. Sebastian Donner, told the Iowa State Daily everything the lab is doing to help the new wine industry in Iowa. Donner runs samples and analysis of wine from around the state. Currently Donner and his team are gathering data from grapes and wine and putting it into a database that will be made available to the industry.

■ The summer Alumni Associate magazine, VOICES, listed 150 contributions ISU has made to the world. Among the list were several related to Food Science and Human Nutrition:

- Maytag Blue Cheese. One of the first patents to establish Iowa State’s presence in the global market dates back to 1937, when dairy microbiologists Clarence Lane and Bernard Hammer developed a blue cheese process using homogenized milk—we know it today as Maytag Blue.

- Soybean Oil for reduction of trans-fat. ISU soybean agronomist Walter Fehr (Charles F. Curtiss distinguished professor) and university emeritus professor of food science Earl Hammond developed a soybean with reduced linolenic acid in the oil to eliminate hydrogenation and the trans-fat produced by the process. Food manufacturers are using the new oil for frying and in products such as cereals, energy bars, and sauces.

- Food irradiation/linear accelerator. Iowa State was the first university to build a linear accelerator facility for conducting food irradiation research and demonstrations. Irradiation is used to preserve food and reduce harmful bacteria.

- Food in space. In 2002, a team of food science students developed a pizza crust that could feed astronauts on space flights. The discovery won the students a NASA product development award.

- Nutritional research. Bernice Kunerth Watt (chemistry/food and nutrition ’32) devoted her career to nutritional research. Over a long career with the US Department of Agriculture, she compiled data on nutrients in 3,000 food, and she led the USDA Nutrient Data Research Center.

- Bringing art to the plains. CY Stephens Auditorium, named for philanthropist Clifford Y Stephens (dairy science ’25), brought art to the plains as the only major fine-arts auditorium in central Iowa in its early years. The building, part of the Iowa State Center, was completed in 1969.

- Nutritional labels. Elizabeth Yetley (community nutrition ’63, MS food and nutrition ’70, PhD ’74) is the woman behind the FDA’s nutritional labeling standards, required on all packaged foods sold in the US.

- Weight gain during pregnancy. The research of Janet King (dietetics ’63) demonstrated that calcium and zinc metabolism adapt during pregnancy, leading to a change in national accepted weight gain standards for pregnant women.



Campaign Iowa State

Campaign Iowa State: With Pride and Purpose has now raised over \$580 million for the University. With just under three years left in the campaign, we would like to challenge each of our department's alumni and friends to consider how you too might participate in the campaign effort. Alumni and friends of the Department of Food Science and Human Nutrition (FSHN) can take part in Campaign Iowa State: With Pride and Purpose and make a difference with donations both small and large. Your dollars support student scholarships, faculty activities and research, updating facilities and equipment, and other current needs of the FSHN department. Gifts can be made to the FSHN department in support of Campaign Iowa State using the donation form on page 8. Donations of any amount may be designated to the departmental general funds within either of our colleges. Donations made to our general funds provide student support through scholarships, graduate assistantships, and travel scholarships; facilities support for critical infrastructure needs; program support for seminars, guest lectures and other community scholarship; and faculty development.

Endowed gifts can also support the critical work of the FSHN department by providing permanent support for academic scholarship through chair and professorships, scholarships, and other wisely invested funds that make a tremendous impact on the mission of the department.

Multi-year pledges, estate gifts, annuities and other methods of giving can also provide significant personal and financial benefits to you and your family, while supporting FSHN programs, research and students.

Recently, donations helped renovate graduate student offices in the Food Science Building and LeBaron Hall. The project began July 6, 2008 and students moved back into their new office the first of August. There is space for ten students in the Food Science Building and eight in LeBaron. "The space is fantastic," said food science graduate student Valarie Rosberg "what a nice place to work and study."



The new space of 3383 Food Science Building



1008 LeBaron



Faculty/Staff Update

Achievements, Awards, and Appointments

After 20 years, **Dr. Tony Pometto** has left ISU to become professor and Chair of the Department of Food Science and Human Nutrition at Clemson University, South Carolina.

Dr. Pam White was named interim dean of the College of Human Sciences, effective July 1, 2008. Dr. White previously served as interim dean of the College of Family and Consumer Sciences for two years and remained interim dean of the new College of Human Sciences after the merger for two months.

University of Hawaii and Iowa State University researchers, including **Drs. Tony Pometto** and **Hans van Leeuwen**, have won a 2008 R & D 100 Award for their work to grow microscopic fungus on leftovers from ethanol production. This award, called the “Oscars of Invention” by the Chicago Tribune, is the 30th R & D 100 Award presented to a project affiliated with Iowa State.

A fond farewell was bid to **Yilin Bian**, Research Associate for the Center for Crops Utilization Research who left ISU after 13 years of service for a research and development position in the private sector.

Joe Colletti, senior associate dean; **Larry Johnson**, director of the Center for Crop Utilization Research, were presented a plaque for the College of Agriculture and Life Science’s winning entry in the Grand Challenge vision for agriculture and forestry’s contribution to the energy economy in 2017.

Pilot Plant Manager **Mark Reuber** is leaving ISU after 21 years for a research and development position in the private sector. He will be missed.

Congratulations to **Dr. Pam White** for being chosen as the recipient of the 2010 IFT Food Chemistry Division Lectureship Award. The award recognizes outstanding and life-long achievements as a food chemist.

Meetings, Participants, Presentations, and Visits

Dr. Aubrey Mendonca has been busy traveling the world this summer. Mendonca traveled to Jamaica to present on food safety and to Guyana and Romania.

Dr. Suzanne Hendrich is a faculty leader for the “Introduction to Learning-centered College Classrooms.” This learning opportunity for all ISU educators encourages discussion of learning and teaching theories and brain research.

Clinician **Sally Barclay** led a lunch and learn session to share why fruits and vegetables are so good for you and how to prepare them for maximum nutrition.

Dr. Diane Birt mentored ArQuette Grant from Delaware State University through the George Washington Carver Internship Program. Their summer project was the role of botanical dietary supplements.

Dr. Ruth MacDonald mentored Silverster Robinson from Prairie View A & M through the AGEP program. His summer project was to improve the Kids Against Hunger product.

Dr. Aubrey Mendonca mentored Kendra Joseph from Kentucky State University through the 2008 George Washington Carver Internship Program. Their summer project was the effectiveness of selected chemical solutions.

Dr. Byron Brehm-Stecher presented research at the Midwest Dairy Association annual meeting in Roseville, MN. Also attending the meeting were **Drs. Ruth MacDonald** and **Terri Boylston**.

Dr. Mike Spurlock and Post-doctoral Research Associate **Nick Gabler** attended the American Society of Animal Science annual meeting in Indianapolis.

Did you know?

6 out of every 10 apples that get eaten every day in the US were grown in Washington State.

4-H Conference at Iowa State

On June 24-26, 2008, over 1000 teenagers from across the state of Iowa once again descended on the Iowa State University campus for the annual State 4-H Youth Conference. The three days participants spent on campus were full of speakers, workshops, mixers, dances, a banquet, and community service activities.

Getting in on the activity were FSHN faculty members Lester Wilson, Ken Prusa, Terri Boylston, Linda Svendsen, and Christine Fedler. Drs. Wilson and Boylston presented a sensory lab, testing the sweetness or tartness of ice tea.

Additionally, the students completed hands-on experiments showing them the methods of identifying reducing sugars. Dr. Prusa, with Christine, Linda, and ISU Extension staff gave a lesson on choosing the best piece of pork. This session also included a look inside the FSHN Product Development class and a sensory lab test. Each session had approximately 30 students.



Dr. Ken Prusa tells a group about Product Development



Dr. Terri Boylston gathers results and explains them to 4-Hers



4-Hers use their senses in a presentation done by ISU Extension



Dr. Lester Wilson gives each lab group the next step

Student Update

Hongxin Jiang was selected to receive a \$2500 graduate fellowship from AACC International for the 2008-2009 year contributed by Charles Becker Fund.

Congratulations to **Laura Ritland**, who had her MS paper published:
Ritland LM, Alekel DL, Matvienko O, Hanson KB, Stewart JW, Hanson LN, Reddy MB, Van Loan M, Genschel U. Relationship of centrally-located fat mass and lean mass to circulating leptin, adiponectin, ghrelin, and insulin in healthy postmenopausal women. / *European/ /Journal of Endocrinology/* 158:889-897, 2008. Corresponding author: D. Lee Alekel

Congratulations to **Heidi Weinkauff** and **Xianai Wu** who placed first and third, respectively, at the Toxicology Graduate Student Organization Poster Session.

Congratulations to PhD student **Kristin Nieman** who received an ISU Research Excellence Award.

Five undergraduates and three graduate students from Food Science and Human Nutrition graduated August 9, 2008. One of those students, **Takiyah Abdulmalik**, carried the College of Agriculture and Life Sciences flag as the student marshal.

Congratulations to **Jody Lohse** on her scholarship of \$500. Lohse was the individual winner of this year's FFA Product Development event and will be a freshman in Food Science this fall.

Alumni Update

Barbara (Olson) King ('68 food & nutr) died March 4, 2008 at her home in Maple Plain, MN following a seven-month battle with cancer. She was 61.

Dr. Darrell Goll (professor in Animal Science) passed away from a sudden heart attack in Tucson Arizona on July 21, 2008. He received his Bachelor of Science degree and Masters of Science degree from Iowa State University. At the time of his death, he was the Head of the Department of Nutrition and Food Science at the University of Arizona in Tucson.

Dr. Cynthia M. Goody, ISU dietetics alum, has joined the McDonald's company as Director of Nutrition. Goody will oversee all aspects of menu nutrition for all McDonald's restaurants in the United States.



Know a graduate who should be featured in FSHN News? Send your ideas and suggestions to fshnnews@iastate.edu.

Did you know?

One bushel of corn will sweeten more than 400 cans of pop

Department of Food Science and Human Nutrition Gift Form

Campaign Iowa State: With Pride and Purpose has the potential to significantly transform the ability of Iowa State University and the Department of Food Science and Human Nutrition to make a global impact in the fields of food science, nutrition, and dietetics. The campaign will allow the University and the Department to perform groundbreaking research and provide innovative undergraduate and graduate education. Your contributions to this effort are critical to its success, and we hope you will consider making a significant gift at this time.

You can support the campaign through gifts of cash, securities, real estate, multi-year pledges and/or through a meaningful legacy gift in your will. If you are ready to make a gift today, complete this form and mail to the ISU Foundation at the address below. You can also give online at www.foundation.iastate.edu/give using a credit card.

OUTRIGHT CONTRIBUTION:

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Gift Designation

I/we wish to designate the gift to the following fund:

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My/our gift will be matched by my/our employer listed here: _____

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MAIL COMPLETED FORM TO:

ISU Foundation, 2505 University Boulevard, P.O. Box 2230, Ames, Iowa 50010-2230.

Our ISU Foundation representatives would be happy to visit with you confidentially if you would like to contribute a named gift or special donation.

Kelly Hanfelt
Director of Development
College of Human Sciences
515/294-1849
khanfelt@iastate.edu

Steven Zoncki
Director of Development
College of Agriculture and Life Sciences
515/294-1118
szoncki@iastate.edu



Upcoming Events

Fall 2008 Begins	August 25, 2008
Labor Day - University Holiday	September 1, 2008
Jacobson Symposium	September 11-12, 2008
CALS Convocation	September 15, 2008
University Convocation	September 22, 2008

NEWS NOTE

Welcome Jason McAreavy as a new Account in FSHN. McAreavy comes to ISU from the banking world. Originally from Muscatine, he attended the University of Iowa and served in Iraq. An avid sports fan, he will work mainly with managing grants and searching out new funding opportunities for FSHN faculty.

More than 13,000 scientists invaded New Orleans, Louisiana for the Institute of Food Technologists (IFT) annual meeting. Several faculty and students from Iowa State University traveled south to hear about the latest food science and technology developments, new products and trends. The Food Science and Human Nutrition Department and Nutrition and Wellness Research Center had a display with the Iowa Department of Economic Development. Dr. Pat Murphy hosted the annual ISU Breakfast Monday, June 30, 2008. Congratulations to everyone who presented thesis research.

Scale-up of oleosome isolation for oil recovery from soybean flour. L Towa, V Kapchie, C Hauck, P Murphy.

Aqueous extraction of soybean oil: Evaluation of enzyme efficiency for soy oleosome isolation. V Kapchie, L Towa, C Hauck, P Murphy. (Oral Session)

Microbial and physico-chemical shelf life of soymilk after high-pressure processing. K Smith, A Ericksen, A Mendonca, S Jung.

Activity of thermal-and pressure-treated soybean enzymes and trypsin inhibitors. I Sala, S Jung.

Quality attributes of baked products with new soybean oils and trans-fat free shortening as alternatives to hydrogenated vegetable shortenings. L Wilson, T Boylston.



ISU Display at IFT