



Food Science Associates and Advisory Board Members,

The LSU AgCenter Department of Food Science is here to serve members of Louisiana's thriving food industry – from processors, farmers, and fishermen to homeowners, restaurants, and schools, to name a few. As one of the LSU AgCenter's eleven academic departments/schools which exist in conjunction with the LSU College of Agriculture, our dedicated faculty prepare students for success, focus their research and outreach initiatives to help the food industry flourish, and in turn, stimulate economic development.

The scope of our work encompasses all facets of the food industry. In response to your needs, the LSU AgCenter's Food Science faculty is engaged in the following:

- Develop new food uses for Louisiana's agricultural products, including functional foods
- Pioneer food safety procedures for meat, poultry, and seafood
- Evaluate the effectiveness of various food production practices
- Conduct safety and quality-related analyses of food products
- Work closely with Louisiana's food producers and processors, including seafood, meat, poultry, dairy, rice, sugarcane, fruits, and vegetables
- Provide training to help the food industry meet regulatory requirements for food safety
- Improve food quality to assure that only the finest Louisiana food products reach the market

As the amount of state support declines, we approach our friends in the industry we serve to request your support. Please help us to continue the important work we do on your behalf. A gift to the LSU AgCenter Department of Food Science is an investment in the department that supports you, and will help to pay operating expenses not covered by state funds. Returns on that investment are great and help ensure that we are best prepared to respond to the needs of more than 400 food industry members.

Please consider supporting the LSU AgCenter Department of Food Science by making a check payable to the LSU Foundation/LSUAgCenter Food Science Fund and sending it to the above address. Your support of our assistance to the food industry, the consumers, and the entire state of Louisiana is greatly appreciated.

We are finally able to show you the artists' rendering of our new building. As you can see on the next page, it is a very spacious building. We certainly do anticipate enjoying the new food chemistry, technology, and microbiology laboratories which it will afford us.

Sincerely,

John



The New Building!



Seafood Certification Program

The LSU Food Science Department has received funding from the Louisiana Department of Wildlife and Fisheries to identify and document critical quality parameters criteria that characterize Louisiana shrimp. The program is in support of the Seafood Certification Program, in which shrimp will be the first Louisiana seafood to receive "Certification." As part of the project we will ascertain objective means to identify quality characteristics that make our shrimp unique. The project will also determine which steps in handling influence the quality of the product and how optimum processes can be incorporated to assure the highest possible quality. State-of-the-art chemical analysis will be applied to pinpoint differences in shrimp as influenced by location and time of the year.

Department of Food Science Awards and Honors

- Dr. Jack Losso was promoted to full professor in the Department of Food Science in April.
- Dr. Beilei Ge was the subject of a profile in an April 16 Los Angeles Times article about meat contamination from drug-resistant staph bacteria. Dr. Ge led the first US study on such bacteria in meat in 2009. She cautioned that although this bacteria is unlikely to cause infection in people who eat contaminated meats, it may be introduced into the body through contact with the skin, especially open cuts. Since many people carry staph in the nose or throat, good hygiene is necessary to prevent contamination from human handling of food.
- Dr. Witoon Prinyawiwatkul was recently named associate editor of the *International Journal of Food Science and Technology* (a leading international forum for high quality research with a practical application in food) published in Europe for the Institute of Food Science and Technology . Prinyawiwatkul is currently an editorial board member/associate editor for the *Journal of Food Science*, *Journal of Food Quality*, *Journal of Sensory Studies*, and *Kasetsart Journal* (Natural Science section, Thailand).
- Graduate students Jiemin Chen and Namrata Karki were inducted this spring to Phi Kappa Phi.
- Feifei Han's dissertation has been selected as one of two dissertations to compete for the university-wide Distinguished Dissertation Award. She will represent the College of Agriculture against dissertations from other colleges on the LSU campus.
- Fei Wang, a Ph.D. candidate working with Dr. Beilei Ge on the development of rapid and novel detection methods for foodborne pathogens, has been selected as a recipient of the prestigious 2011-2012 Dissertation Year Fellowship from 42 nominations submitted to the LSU Graduate School this year. This award recognizes outstanding Ph.D. students completing their dissertation research. A stipend of \$18,000 (August to May) is awarded, and Fei will dedicate his time entirely to the completion of his dissertation research.
- Graduate students Damir Torrico, Adriana Soto Rodriguez, and Daryl Holliday, as well as undergraduate student Kristen Davis, were recipients of the Feeding Tomorrow Graduate Scholarship offered through IFT.
- Dr. Sathivel Subramaniam's work was used for the cover of the *Journal of Food Science*, volume 76, issue 4 (May 2011).
- LSU food science students were recently honored by Gamma Sigma Delta:



Damir Torrico was honored as the 2010-2011 Outstanding MS Student.



Damir Torrico and Wannita Jirangrat, Ph.D. students, were honored for the 2010-2011 Graduate Student Merit Honor Roll.

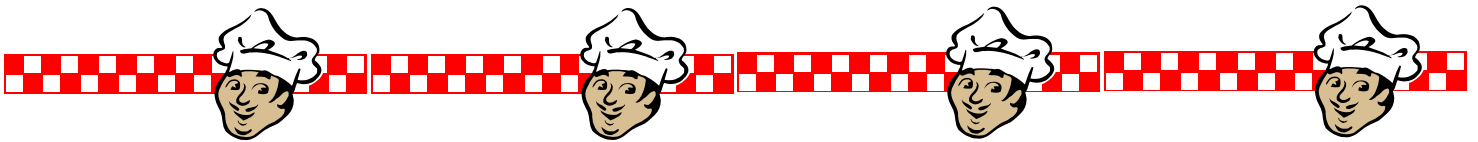


Fei Wang won the Outstanding Ph.D. Student Award.



Darryl Holliday Named “Certified Research Chef”

PhD student Darryl Holliday was named a “Certified Research Chef” by the Research Chefs Association. Over the past twenty years, there has been a surge in the number of chefs working for food manufacturing companies to help improve the quality of their retail items. However, many chefs do not have the science background to communicate with food scientists, nor do the food scientists have the culinary knowledge to communicate with the chefs. This continues to be a major issue in many companies. Fifteen years ago, however, a group of chefs working in food manufacturing established the Research Chefs Association (RCA) to foster the creation of Culinology®, the discipline of combining culinary arts with food science. Since then, the RCA has created a certification program for qualified professionals as Certified Research Chefs and Certified Culinary Scientists (CRC & CCS respectively), providing the food industry the most valuable sought-after product developers who excel in Culinology®. The certification requires training in culinary arts, supervisory experience in a commercial kitchen, and completion of a validation exam. RCA-certified professionals are preferred by many employers because they guide innovation by having unique, powerful, value-added skill sets. CRCs and CCSs are highly regarded in the industry, and are therefore employed by some of the most respected food companies in the world. In fact, the Research Chefs Association Certification Commission reports that major food companies are seeking certification for their product development employees, encouraging them to fulfill CRC and CCS eligibility requirements and pursue certification in order to shine as leaders among the competition. It is with great enthusiasm that the Department of Food Science recognizes PhD candidate Darryl Holliday for achieving the Certified Research Chef title, making him one of only seventy-four people nationwide with this certification.



Dr. Joe Regenstein Leads Seminar

Dr. Joe Regenstein from Cornell University, gave a seminar on “Factory Farming: Feeding the World” on Friday, March 18. Dr. Regenstein is Professor of Food Science at Cornell, Adjunct Professor in Population Medicine and Diagnostic Sciences in the Vet School, a member of the Governing Board of the Science of Natural and Environmental Systems (SNES) program, and a member of the Program of Jewish Studies. He is also an Adjunct Professor in the Food Industry Program at Kansas State University.

Dr. Regenstein’s research is focused in four areas: protein functionality in muscle food systems, quality and safety of fish and poultry, fishery by-products and disposal, and kosher Jewish and halal (Muslim) food laws. He is a frequently invited speaker on food systems and policy, science education, sustainable agriculture, urban environment, and value-added agriculture. He was the first Congressional Science Fellow of the Institute of Food Technologists in 1996 and is a Fellow of that organization. He serves as a member of the Food Marketing Institute/National Council of Chain Restaurant’s Animal Welfare Technical Committee and as technical advisor to the Islamic Food and Nutrition Council of North America and the Jewish Vegetarians of North America. He is the University of Arizona Albert T. Bilgray Scholar for 2011. He and his wife Carrie have written two technical books, *Food Protein Chemistry, An Introduction for Food Scientists* and *An Introduction to Fish Technology*.



LSU Grad Students Win National Competition



The Institute of Food Technologists (IFT) and CanolaInfo announced the winner of the inaugural Heart-Healthy Product Development Competition at Wellness 11 held in Rosemont, Ill on March 25. The winning student team from LSU Food Science developed Ze-Ti, a shelf-stable bubble tea designed for the grab-and-go lifestyle.

The goal of this competition was to showcase how the food industry can position itself to help consumers comply with the Dietary Guidelines for Americans 2010 recommendation of saturated fat comprising less than 10 percent of total calories. Students were asked to create new, heart-healthy food products that are low in saturated fat and free of trans fat. Products could be for any of meal of the day or a healthy snack and had to include canola oil, which is low in saturated fat.

Team members Adriana Soto, Alisa Todd, and Darryl Holliday received a check for \$3,500, complimentary registration to the 2011 IFT Annual Meeting & Food Expo in New Orleans and a trophy. For their winning product Ze-Ti, which is low in fat and sodium; a good source of potassium, fiber and vitamin C; and free of cholesterol, trans fat and added sugars. In addition, the manufacturing process for making Ze-Ti is energy efficient and the cups it comes in are made from recyclable materials. For more information, see www.ift.org.



2011 IFT Annual Meeting Awards

- Damir Torrico, a Ph.D. student, was selected as the finalist for the Product Development Graduate Research Paper Competition. The title of the paper was “Novel Mineral Oil-Chitosan Emulsion Coating Affects Shelf Life of Eggs with Varying Initial Albumen Qualities,” supervised by Prinyawiwatkul, W.
- Wannita Jirangrat, a Ph.D. student, was selected as the finalist for the Sensory and Consumer Sciences Graduate Research Paper Competition. The title of the paper was “Quantifying Contrast Effect in Consumer Acceptance Tests Using the Logistic Regression Analysis,” supervised by Prinyawiwatkul, W. Wannita also received a \$250 scholarship from the IFT LA Gulf Coast Section (sponsored by Tom Quinn & Associates) to attend the 2011 Annual IFT Meeting in New Orleans, LA, June 11-14, 2011. The title of the IFT abstract was “The two-way split-plot with repeatedly randomized complete block design (SPRCBD) helps minimize psychological biases from sample presentation protocol in consumer tests.”
- Sriwiang Tipkanon, a Ph.D. student, was selected as the finalist for the Product Development Graduate Research Paper Competition. The title of the paper was “Development of Isoflavone Aglycone-Enriched Soy Germ Flour: Effects of Soybean Varieties, Harvest Seasons, and Processing Conditions,” supervised by Prinyawiwatkul, W.



2011 IFT Annual Meeting & Food Expo

Get education and information you can use now through the 100+ Scientific Program sessions organized within tracks such as Product Development & Ingredient Innovation; Food Safety & Defense; Public Policy, Food Laws & Regulations; and Education & Professional Development.

At the IFT Food Expo, you can experience the latest products, learn about the latest trends, and shorten your sourcing process by visiting with the industry's largest global collection of food ingredient, equipment, and packaging suppliers.

Also, throughout the event, you'll enjoy many formal and informal opportunities to network and make connections with other food professionals. If you value in-person networking opportunities year-round, consider joining the IFT Louisiana Gulf Coast Section and participating in their many local professional activities and special events.

See new products, advance your skills, expand your professional network, and more!

Join thousands of food professionals from around the world right in your own backyard at the 2011 IFT Annual Meeting & Food Expo in New Orleans June 11-14 at the Morial Convention Center.



Louisiana Food Processors Conference

A leading food safety expert kicked off the seventh annual Louisiana Food Processors Conference March 16-17 in Baton Rouge. Dr. David Acheson, a physician and leading expert on foodborne pathogens, gave his insights on the Food Safety Modernization Act, which was signed into law by President Barak Obama on January 4, 2011. The law is intended to ensure the U.S. food supply is safe by shifting the focus of federal regulators from responding to contamination to preventing it, according to the U.S. Department of Health and Human Services.

A former associate commissioner of foods for the U.S. Food and Drug Administration, Acheson had agency-wide leadership for all food and feed issues, including health promotion and nutrition. He now is managing director for food and import safety at Leavitt Partners LLC, a consulting firm working with PricewaterhouseCoopers on food safety for international clients.

The food processors conference focused on new regulations in food safety and security, food marketing, global trade, processing training, emerging pathogens and record keeping, according to John Finley, head of the LSU AgCenter Department of Food Science. The meeting also included presentations on the benefits of factory farming by Joe Regenstein, product recall by Stuart Hanfling, and workplace development by Carrie Regenstein. In addition, there were sessions on food safety and marketing and consumer issues.

"This conference is intended for all those with an interest and stake in the future of the Louisiana food processing industry – food processors, food processing support industries, governmental representatives, state and federal regulatory agencies and entrepreneurs who may be considering a business in food processing, Finley said.

The conference was held in the Energy Coast and Environment Building at Nicholson Drive and Nicholson Drive Extended on the LSU campus. It was sponsored by the LSU AgCenter, Louisiana Economic Development and the Louisiana food processing industry and allied supporters.

LSU AgCenter Food Science Associates

What is LSU-AFSA?

The Louisiana State University AgCenter Food Science Associates (AFSA) is an affiliate organization of the AgCenter Food Science Program. The purpose of the organization is to unite industry members, alumni, and friends of the Food Science Department, providing two-way communication between the associates and the department. The department will provide you with the latest information on our research and extension activities through an annual meeting and monthly newsletters. The Food Science Department also sincerely wants your feedback and suggestions on research, education and outreach. We are here to serve you and want your involvement in the department.

What are the benefits of membership in LSU-AFSA?

- ★ Email updates of news in food and nutrition and Department
- ★ Annual update reviewing Food Science Programs in order to facilitate dialogue between Industry and Food Science Extension and Research
- ★ Opportunity to suggest and request direction
- ★ Updates on publications in real time; publications made available to you when published
- ★ Discount on microbiological services
- ★ Discount on contract projects
- ★ Special reports on Food Science projects

What special projects are in the works?

One of our goals is to develop a new Louisiana Foods for Health Innovation Center. This center would serve as a research and development incubator for new and existing food companies to develop the latest technology. It would include a culinary center, a food pilot plant, development laboratories, offices, and testing labs to facilitate your product development.

Please consider supporting this new endeavor.

What are LSU AgCenter Food Science Associates?

Associates are companies that join in the LSU network which provides up to date knowledge on research projects and critical issues in Food Science and Nutrition. We keep you informed on activities within the department and advances to the industry.

LSU-AFSA Membership Renewal Form

Please Choose a Membership:

Industrial Membership:

Number of Employees	Annual Fee
<input type="checkbox"/> Over 1000	\$ 2500
<input type="checkbox"/> 500 to 1000	\$ 1000
<input type="checkbox"/> 100 to 499	\$ 500
<input type="checkbox"/> fewer than 100	\$ 250

Individual Membership:

<input type="checkbox"/> Tiger	\$ 100
<input type="checkbox"/> Booster	\$ 50
<input type="checkbox"/> Tailgater	\$ 25

Affiliation: _____

Address: _____

City: _____ State: _____ Zip: _____

Telephone: _____

Fax: _____

Email: _____

Return Completed Form and Payment to:

LSU Foundation
c/o Department of Food Science
Louisiana State University
111 Food Science Building
Baton Rouge, LA 70803

Name: _____



111 Food Science Building
Louisiana State University
Baton Rouge, LA 70803
(225) 578-5207

**LSU AG CENTER
DEPARTMENT OF
FOOD SCIENCE**

www.lsu.edu/foodscience
[www.lsuagcenter.com/
foodscience](http://www.lsuagcenter.com/foodscience)

Seafood HACCP Hazards Guide

The new Seafood HACCP Hazards Guide has now been published. It may be accessed at www.seafood@ucdavis.edu. Seafood processors are urged to review this updated guide for changes to FDA seafood safety recommendations. If there are questions related to the Guide or any areas that seem unclear, contact Lucina Lampila, LSU Sea Grant Seafood Specialist and Food Science Associate Professor at 225-578-5190 or llampila@agcenter.lsu.edu. Dr. Lampila serves on the Seafood HACCP Steering Committee and is Principal Editor of the Seafood HACCP Compendium of Fish and Fishery Product Processes, Hazards, and Controls.

Calendar of Events

June 11-14, 2011 *IFT Meeting, New Orleans*

July 18-21, 2011 *Better Process Control School , BR
(in English and Spanish)*

Departmental Publications

1. Phimpfarian, C., Jangchud, A., Jangchud, K., Therdthai, N., Prinyawiwatkul, W., and No, H. K. 2011. Physicochemical Characteristics and Sensory Optimization of Pineapple Leathers as Affected by Glucose Syrup and Pectin Concentrations. *International Journal of Food Science and Technology*. 46(5):972–981..
 2. Torrico, D. D., No, H. K., Prinyawiwatkul, W., Janes, M. E., Herrera-Corredor, J. A., and Osorio, L. F. 2011. Mineral Oil-Chitosan Emulsion Coatings Affect Quality and Shelf-Life of Coated Eggs during Refrigerated and Room Temperature Storage. *Journal of Food Science*. doi: 10.1111/j.1750-3841.2011.02125.x 76(4), May issue.
 3. Ryu, K. N., No, H. K., and Prinyawiwatkul, W. 2011. Internal Quality and Shelf Life of Eggs Coated with Oils from Different Sources. *Journal of Food Science*. doi:10.1111/j.1750-3841.2011.02177.x.
 4. Torrico, D. D., No, H. K., Sriwattana, S., Ingram, D., and Prinyawiwatkul, W. 2011. Effects of Initial Albumen Quality and Mineral Oil-Chitosan Emulsion Coating on Internal Quality and Shelf-Life of Eggs during Room Temperature Storage. *International Journal of Food Science and Technology*. Accepted for publication.
 5. Wan, Yuting, Bankston, Joseph David, Jr., Bechtel, Peter J., Sathivel, Subramaniam. 2011. Microencapsulation of Menhaden Fish Oil Containing Soluble Rice Bran Fiber Using Spray Drying Technology. *Journal of Food Science*. 76 (4), May issue.
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