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Goals & Objectives

GOALS

- Maintain an infrastructure to support interdisciplinary research, teaching, and training collaborations, as well as external partnerships with academia, industry, government, and consumers
- Ensure the protection of public health by conducting research on pathogens and advancing food systems’ technology
- Promote food safety practices to ensure high quality and sustainable food systems
- Facilitate and make tangible contributions to national, regional, and state food system efforts
- Inform and contribute to the legislative and regulatory creation of standards relating to food systems

OBJECTIVES

Establish AUFSI internal and external advisory boards to provide feedback and quarterly and annual reviews

Maintain an interdisciplinary, cross-departmental venture for core faculty and working groups throughout the Auburn University network and in collaboration with other universities

Maintain a cadre of content experts in core science and technology focus areas

Facilitate and pursue collaborative funding opportunities

Develop advanced tools, practices, and interventions to reduce foodborne hazards in every part of the food chain

Establish an Entrepreneur Center to engage in research, testing, and training activities that promote the startup of new food system businesses

Develop quality credit and non-credit educational courses in food systems-related disciplines

Develop quality education for K-16 learners in food safety and related environmental issues

Create and improve public awareness about food systems-related health, economic, and implementation issues

Interact and participate with the local, state, national, and international food system communities

Determine impact of attendance at regional and national expos

Build relationships with local, state, and federal government representatives that impact the food system
AUFSI: Food for Thought

Check out one of our outreach tools, a recently developed video that succinctly explains the need for AUFSI in a world where a large, rapidly growing population is facing limited food resources. You can find the AUFSI Overview Video on our Facebook page, facebook.com/AUfoodsystemsinstitute, and on the AUFSI website at aufsi.auburn.edu.

You might be thinking, “what exactly is a food system?” and why does Auburn University have an institute devoted to the topic? First, a food system includes all the complex, interrelated processes it takes to feed us. The system includes everything from growing, harvesting, and transporting food to marketing, consuming, and disposing of food. And since a food system is so multifaceted, it only makes sense that the Auburn University Food Systems Institute reaches out to many departments on campus to create an interdisciplinary structure.

AUFSI works with the university’s world-renowned aquaculture program, the National Center for Asphalt Technology, the Detection and Food Safety Center, and even Alabama Water Watch to address food system concerns. Communicating researchers’ food-related findings through proper training and outreach are also part of AUFSI’s plan. AUFSI strives to maximize Auburn’s existing internal strengths in the food systems arena as well as facilitate external collaborations with industry and government agencies.
AUFSI achieved a landmark this last year when the group moved from being an “initiative” to an “institute.” But what does that mean?

First, a little background. “Initiatives” are a relatively new animal on campus, organized around a specific interest or a strategic commitment to a particular topic. If the initiative is successful (and this can be measured in various ways), the initiative is formalized as a center or an institute. And AUFSI has been successful in various areas, from bringing in some $11 million in extramural funding to bringing together Working Groups of faculty from different disciplines to getting the Virtual Food Systems Training Consortium. We’re also working to create a Virtual Food Entrepreneur Center.

According to the Centers and Institutes Policy passed by the Auburn University Board of Trustees in 1990, a center or an institute represents a well-defined area of instruction, research, or outreach and involves faculty and resources from more than one discipline, department, college, or school. So far, of course, the Auburn University Food Systems Institute involves faculty from nearly every college and school as well as from other universities. Both initiatives and institutes are established when a university has existing strengths and resources in the programs, including a critical mass of faculty and a demonstrated commitment from involved faculty and administration to actively participate. Being named as an institute, however, provides the program with greater visibility and increased potential for extramural funding, as well as a degree of permanence.

Ordinarily, all centers and institutes are the responsibility of a vice president or the provost, but according to the policy it is essential that academic deans be directly involved in the administration. The director of the center or institute reports to this administrative board, which, in turn, reports to the appropriate vice president. One of the accomplishments we’re proud of this year is the establishment of just such a board (see page 23).

Are we proud? You bet we are. AUFSI staff and core faculty have worked hard this last year—and we’re not resting on our laurels just yet!

SINCERELY,

Patricia Curtis, PhD
Director, Auburn University Food Systems Institute
The Auburn University Food System Institute includes core faculty members who are a part of working groups consisting of researchers from different disciplines. These core faculty members share common interests pertinent to food systems and communicate their respective research to one another. In 2012, AUFSI added eight new core faculty members from varied disciplines such as geology, agricultural economics, supply chain management, public relations, and biosystems engineering.

TONI ALEXANDER is an associate professor in the Department of Geology and Geography and is particularly interested in “cultural geography.” Cultural geography describes and analyzes the ways that language, religion, economy, government, and other cultural phenomena vary or remain constant from one place to another.

COVA ARIAS, a microbiologist, is an associate professor in the Department of Fisheries and Aquaculture who researches oyster safety among other topics.

CHRISTY BRATCHER is an assistant professor of meat science in the Department of Animal Sciences. She investigates food safety and niche markets for beef and goat meat.

BRIGITTA BRUNNER, an assistant professor in the Communications and Journalism Department, heads the public relations program. She possesses expertise in crisis management.

ZHONGYANG CHENG, a professor in the College of Engineering, is assistant director of the Center for Detection and Food Safety in the College of Engineering.

SUE DURAN is the pharmacy director for the College of Veterinary Medicine, researches new products for treating diseases in food animals, and works with veterinarians to study proper dosages and withdrawal times to ensure meat and milk safety.

AL GIFFIN is director of Auburn transportation programs and works with the National Center for Asphalt Technology at Auburn University.
TUNG-SHI HUANG is an associate professor of food science in the Department of Poultry Science. He studies food safety and development of biosensors to detect foodborne pathogens.

CURTIS JOLLY is chair of the Department of Agricultural Economics and Rural Sociology in the College of Agriculture. He is interested in development, trade, and the economics of fisheries.

ALLISON JONES FARMER is an associate professor in the College of Business' Department of Aviation and Supply Chain Management. Her interests include statistics, quality and statistical process control, and business analytics.

KEN MACKLIN is an associate professor and Extension specialist in the College of Agriculture's Department of Poultry Science. His research interests include the reduction of foodborne bacteria through the use of feed additive and the safe handling and disposal of poultry litter.

BOB NORTON, a professor in the Department of Poultry Science and the director of the Open Source Intelligence Lab, is an expert at data mining and database management.

WILLIAM RAVIS is a professor in the School of Pharmacy. His research focuses on the pharmacokinetics of drugs.

BONNIE SANDERSON, an associate professor in the School of Nursing, is interested on the effects of obesity on health.

CHETAN SANKAR is a professor of management in the College of Business and is director of the Geospatial Research and Applications Center.

MANPREET SINGH, a microbiologist and assistant professor in the Department of Poultry Science, is an expert on food safety and food processing.

HARSHVARDHAN THIPPAREDDI is a professor and Extension specialist in the Department of Food Science and Technology at the University of Nebraska-Lincoln. He is interested in the development of technologies for the food industry to control foodborne pathogens, non-thermal food processing and safety, and rapid detection and identification of foodborne pathogens.

YIFEN WANG is an assistant professor in the College of Engineering's Department of Biosystems Engineering. He is interested in the applied and fundamental study of food engineering and food safety.

SUSAN WATERS is an assistant professor in the Department of Communications and Journalism. She is an expert on public relations and social media.

JEAN WEESER, a food science professor and Extension specialist for the Department of Poultry Science, researches issues in food processing and food service.

NORBERT WILSON is an associate professor in the College of Agriculture's Department of Agricultural Economics and Rural Sociology.

JIM WITTE, an associate professor in the College of Education, is interested in the development of training programs.

MICHELLE WOROSZ is an assistant professor in the Department of Agricultural Economics and Rural Sociology and researches economic viability in rural settings.
Dr. Susan Waters, an assistant professor in the Department of Communications and Journalism, received the College of Liberal Arts’ Teaching Excellence Award for 2013. She also received the “top paper” award from the Political Communication Interest Group at the Central States Communication Association Conference last March in Cleveland. Waters currently is serving as chair for the Janice Hocker Rushing Early Career Research Award Committee of the Southern States Communication Association and is a current member of the editorial boards for the Western Journal of Communication and Communications Studies.

Among her eight scholarly presentations during the year, she joined fellow core faculty member Brigitta Brunner and others on a panel about Communicating Service Learning in Public Relations Courses at the Southern State Communication Association Conference in San Antonio in April.

Dr. Tung-Shi Huang, a core faculty member and professor in the Department of Poultry Science, is among a team of Auburn University scientists that has obtained a U.S. patent titled “Microbial expression of tobacco osmotin for biocidal and medical applications.” Other team members are Ywh-Min Tzou, Huang’s graduate student; Narendra Singh, an Auburn University professor of biological sciences; and Bryan A. Chin, an Auburn professor of materials engineering and director of the Detection and Food Safety Center.

Huang joined core faculty members Dr. Zhongyang Cheng and Dr. Jean Weese for a presentation on “Monitoring the Campylobacter population on poultry by using magnetostrictive biosensors” presented at the International Association for Food Protection annual meeting in July. Others participating in the presentation were O. Wang, L. Zhang, Shelly McKee and Y.C. Chai, all from Auburn. At the same meeting, Huang and Weese presented on “Controlling Aspergillus niger on strawberries by recombinant tobacco osmotin for extending shelf-life.” They were joined by D. Cheng and Ywh-Min Tzou. Finally, Huang and Weese made a presentation on “Antibacterial activities of Clitocybe nuda mushroom extract on foodborne pathogens” at the meeting. They were joined by L. Bo, J.T. Chen and J.W. Huang, all from Auburn. During the last year, Huang has published articles on his research in four journals: Polymer, the Journal of Applied Polymer Science, Cellulose, and Reactive and Functional Polymers.

Our core faculty have been traveling!

Pins show countries core faculty visited in 2012
AUFSI is pleased to announce that the 2014 edition of Auburn Speaks, an annual peer-reviewed publication featuring research by Auburn faculty, staff, and students, will focus on food and hunger. This research could address a number of topics, including state, regional, and global issues of food safety, availability, quality, and sustainability. Dr. Patricia Curtis, AUFSI director, will be the editor.

AUFSI core faculty member Dr. Ken Macklin, an associate professor and Extension scientist in the Department of Poultry Science, received the Outstanding Service Award for 2012 from the Poultry Science Association. His work was included in the book Proceedings of the 2012 National Poultry Waste Management Symposium, and this year he has published articles in the journals Poultry Science, Zoonoses and Public Health, and the Journal of Poultry Science.

Core faculty members Dr. Chetan Sankar and Dr. Allison Farmer, both in the Department of Supply Chain Management in the College of Business, have received a $200,000 grant from the National Science Foundation to study “Predictors of Dissemination Success of STEM Learning Innovations: An Empirical Investigation.”

Dr. Iryna Sorokulova, a microbiology professor in the College of Veterinary Medicine and a member of the Antibiotic Resistance Working Group, represented Auburn University and AUFSI at the World Congress of SQ Foods-2012 in Shenzhen China. The theme was Science, Safety, Quality, and Sustainability. Sorokulova presented the results of her research into probiotics.

Dr. Sue Duran recently spoke at the Society of Veterinary Hospital Pharmacists meeting on the development of a veterinary pharmacy curriculum for pharmacy schools and colleges. She is a professor in the College of Veterinary Medicine’s Department of Clinical Sciences. She is also certification chair for the society’s International College of Veterinary Pharmacy, which awards the title of “Diplomate” to qualified pharmacists.

Dr. Brigitta Brunner, an associate professor in communications and journalism, is part of a consortium that has received a grant from the Teagle Foundation to investigate civic professionalism in the liberal arts. She has also been promoted to full professor.

Dr. Bonnie Sanderson, an associate professor in the School of Nursing, was the lead author on an article titled “Writing for publication: Faculty development initiative using social learning theory” in Nurse Educator in 2012 and co-authored two other articles accepted for publication in the last year. She also gave six presentations, including three international, related to cardiac rehabilitation in 2012. Dr. Sanderson served on a discussion panel at the Alabama Political Association 2012 Annual Meeting. The topic was “How the Affordable Healthcare Act will effect preventive/rehabilitative services.”

Dr. Yifen Wang, an associate professor of biosystems engineering, spent nine months last year at the headquarters of the United Nations’ Food and Agriculture Organization in Rome, serving as a visiting expert on seafood quality and safety. He also spent April through December in Tangier, Morocco, and took six Auburn University students with him to Shanghai, China, to teach a class entitled “Fish and Seafood Processing Technology” as part of the Auburn Study Abroad Program. Wang also won a the Pond-to-Plate project team award from the College of Agriculture. The project's long-term objective is to ensure the quality and safety of catfish products.
AUSFI has made great leaps in the last year in its mission to promote interdisciplinary research, outreach, teaching, and training opportunities relating to food systems among all sectors: academia, the food industry, government, and consumers. Below and on the following pages are some of our accomplishments.

- Revised mission statement, goals, and objectives for 2013
- Established Internal Advisory Board of Deans
- Established Virtual Food Systems Training Consortium (VFSTC) Advisory Board
- Established IACET (International Association for Continuing Education and Training) committee to complete accreditation process for AUFSI to become IACET provider
- Established partnerships with three universities through collaborative grant efforts
- Expanded core faculty membership, who attended and/or presented at 13 conferences (ranging from regional to international) and established HAACP, AFDO, and AFDOSS connections
- Established social networking avenues: web page, Twitter, Facebook
- Developed training needs assessment and administered assessment to state inspectors in four states
- Became partner in FDA-approved Vibrio lab and entrepreneur food-testing lab
Virtual Food Systems Training Consortium

AUFSI's Technology Group is working with a cadre of subject matter experts from four universities to create training for inspectors of FDA-regulated foods.

In 2011, after the U.S. Congress passed the Food Safety and Modernization Act, AUFSI was awarded a $6.5 million five-year grant to create training programs for inspectors of Food and Drug Administration-inspected foods through a Virtual Food Systems Training Consortium (VFSTC). Other consortium members are Purdue University, North Carolina State University, and Memphis State University. Through its Working Groups and utilizing the skills of AUFSI core faculty in cooperation with the FDA, several courses are under development. These Year 1 courses and stand-alone modules are nearing completion:

- **Basic food microbiology**, a course that provides a basic overview of the topic for inspectors of FDA-regulated products. The course covers topics such as factors contributing to microbial growth in a food environment and organisms associated with specific foods.

A virtual feed mill is being constructed in Second Life as a complement to several other courses.

Continued on following page
VFSTC moves forward with developing online training

Continued from previous page

A biology course and covering laboratory methods for inspectors with little or no knowledge of food microbiology.

- **Listeria**, a stand-alone module on the bacteria implicated in a deadly outbreak of foodborne illness that was traced back to cantaloupe.

- **Vibrios**, a stand-alone module on the widely occurring bacteria responsible for illnesses ranging from cholera to the vibriosis caused by *Vibrio vulnificus*, which can cause illness in those eating oysters from the warm waters of the Gulf.

- **Sanitation**, an introductory course on evaluation of a food plant sanitation program.

- **Feed industry definitions**, which provides inspectors with an overview of acronyms and common and scientific definitions for ingredients, processes, and equipment used in the feed industry.

- **Virtual feed mill tour**, which complements the feed industry definitions course and includes a face-to-face feed mill training course.

- **Oral communications**, aimed at inspectors who have to communicate bad news to plant managers and officials who have to talk about outbreaks of foodborne illness.

- **Specialty eggs**, a stand-alone module to educate both consumers and inspectors about the new kinds of eggs on the market and serve as an introduction to a course on egg safety.

For 2013, VFSTC solicited proposals for another series of courses to be developed in 2013. Courses currently under development are:

- **Salmonella**, a stand-alone, on-demand module on the bacteria that is responsible for some 40,000 cases of foodborne illness a year.

- **Layer Housing Systems Virtual Tour**, a virtual tour of the different kinds of housing systems being used in the commercial egg production industry today.

- **Retail Food Service Establishment Virtual Tour**, a virtual tour of a food service establishment such as a restaurant, with potential problems identified.

- **Food Service Manufacturing Virtual Tour**, a virtual walk-through of a food service manufacturing plant, with problems areas pointed out.

- **Feed Inspector Training**, a face-to-face course taught in cooperation with two other universities, from which an online course will be developed in the future.

- **Sanitation Part 2**, a continuation of the first year’s introductory course on evaluation of a food plant sanitation program.

- **Micro-Rapid Methods of Detecting Contamination**, a two-part course on new methods for detecting foodborne pathogens.

VFSTC also will serve as an umbrella to create other training programs utilizing our state-of-the-art technology. AUFSI assists the process by providing assistance with technology, writing, and assessment to provide a professional product. A VFSTC Advisory Board including state health officials has been established.

**IACET Task Group works to meet CEU requirements**

Almost every week, the four members of the International Association for Continuing Education and Training (IACET) Task Group meet to work through developing policies and procedures to meet the standards for certification set forth by IACET. Once all these policies and procedures are finalized and following a self-study and site visit, AUFSI will be able to provide Continuing Education units for its programs.

IACET’s mission is to promote and enhance quality in continuing education and training through research, education, and the development and continuous improvement of criteria, principles, and standards.
Alabama’s food entrepreneurs are legion. Sister Schubert got her start in Troy, Ala. Wickle’s Pickles are created in Dadeville. Mook Mills Cheese Straws are from Tuscumbia. Mamie’s Cheese Straws are created at Spring Hill Kitchens near Mobile. Belle Chevre Fromagerie produces goat cheese delicacies in rural north Alabama, and Mike Elliott’s Barbeque Sauce is manufactured near Lake Martin.

The road from the kitchen to the grocery store or restaurant is full of potholes, however. The odds are against small businesses, with more than 50 percent failing in the first year and 80 percent within five years.

The Auburn University Food Systems Institute desires to improve these odds by creating a Virtual Food Entrepreneur Initiative that will provide a central source of information and expertise to help hopeful entrepreneurs get their product ready for market, find financing and negotiate a maze of regulations.

Experts on campus already provide a host of services. Sister Schubert now boasts sales of $100 million annually, selling more than 500 million yeasty rolls every year. Back in 1989, however Patricia Barnes was baking rolls in her Troy kitchen. Her first sales were at a church bazaar, and she sought help from Auburn for nutrition labeling and Hazards Analysis and Critical Control Points (HACCP) training before she took the next step. Wickle’s Pickles received assistance with nutrition facts and food testing. Auburn helped Mook Mills through a business incubator affiliated with the University of North Alabama in Florence.

AUFSTI’s Virtual Food Entrepreneur Initiative will bring together existing university organizations, such as the Small Business Development Center, the Auburn Business Incubator, and the Alabama Cooperative Extension Service (ACES) food safety team, to provide the information that aspiring food entrepreneurs need to start or improve a business. Ultimately, the Virtual Food Entrepreneur Initiative will have a Web presence, with much helpful material for those seeking to go into business for themselves.

The center’s first project is a Food Entrepreneur Conference, scheduled for mid-March. Like the Food Entrepreneur Initiative, the Food Entrepreneur Conference encourages entrepreneurship in a state without many large industries to provide well-paying jobs. Just one successful food entrepreneur can provide several jobs to his or her neighbors, and those people could eventually move forward with their own successful food business. A cycle of success could begin.
The National Egg Products School and USDA agricultural training are just a few of the opportunities available through AUFSI.

The National Egg Products School took place on October 15 and 16, 2012, in Auburn. The annual four-day, hands-on introduction to egg processing was hosted by AUFSI, with Auburn University and the American Egg Board as sponsors. This year, Deana Jones of the USDA’s Agricultural Research Service planned and coordinated activities. Some 33 students from the egg processing and food service industries were on hand to learn about such subjects as egg formation, the FDA’s Egg Rule, and the latest research on egg nutrition. They also took part in labs, where they learned about foaming and whipping, custards, and emulsification. Other training offered in partnership with the Alabama Cooperative Extension Service this past year:

- The USDA’s Good Agricultural Practices (GAP) class is designed for growers and other fresh produce handlers. The classes focus on the costs and impact of diseases and outbreaks caused by foodborne pathogens, as well as strategies for controlling potential microbial food safety hazards before planting and throughout all phases of production from planting through harvest and postharvest. The classes also cover proper handling of produce.

- Hazards Analysis and Critical Control Point (HACCP) training is a systematic preventative approach to food safety that is mandated by the FDA and the USDA. HACCP is used in the food industry to identify potential food safety hazards, so that key actions can be taken to reduce or eliminate the risk of the hazards. The system is used at all stages of food production and preparation, including packaging, distribution, and more. AUFSI core faculty offer meat and poultry HACCP classes through the International
Barbara Shipman from Ariton in northwest Alabama is among those who have learned how to implement Good Agricultural Practices from AUFSI core faculty member Jean Weese. Her business, RRBG Farm, grows greens year-round, including collard greens, wide leaf and curly leaf turnips, purple top turnips, mustards, red and white radishes, onions, head lettuce, and Romaine lettuce.

HACCP Alliance as well as seafood HACCP classes through the Seafood HACCP Alliance. In fact, AUFSI was responsible for securing training for regional Extension agents to provide seafood HACCP.

- The National Restaurant Association’s ServSafe course teaches food service managers and food handlers about food safety. Many restaurants require this credential for management.

- The Better Process Control School fulfills FDA and USDA Good Manufacturing Practice requirements to certify supervisors involved in the manufacturing of low-acid and acidified foods. Such companies must operate with a certified supervisor on the premises.

AUFSI exhibits at annual IFT show

Auburn University Food Systems Institute staff and members of the Office of the Vice President of Research program development staff talked up AUFSI at the Institute of Food Technologists’ annual Food Expo in Las Vegas. The giant conclave, June 25-28, 2012, attracted food professionals from all over the world for educational sessions and booth-browsing. More than 18,000 registrants came from all 50 states and 80 countries, so AUFSI representatives were busy talking about our programs and making contacts with the trade press.

We’re social!

Keep up with the Auburn University Food Systems Institute on social media. Friend us on Facebook at www.facebook.com/aufoodsystems institute or follow us on Twitter at AUFSI.
AUFSI helps faculty write interdisciplinary grants, such as the recently awarded $4.8 million grant that will aid a team of researchers from Auburn and Tuskegee University in identifying gaps in food safety measures among small food producers in the Southeast. The grant, awarded by the USDA’s National Institute of Food and Agriculture, is an effort to encourage the growth of local food producers and processors and, as a result, boost rural economies.

Dr. Christy Bratcher, an Auburn University assistant professor of animal science, heads the team. Seven researchers from Auburn University and two from Tuskegee are involved in the project, which will complement AUFSI’s efforts in the area of promoting food entrepreneurship.

“The focus of the grant will be on small farmers, processors, and vendors of red meat and small ruminant products in the Southeast. The team will survey current practices in local and regional food production and do environmental bacterial sampling on small farms. They will compile data to create “best practices” and training modules for producers, following up with re-evaluation of changes in producer behavior with surveys and more environmental sampling.

The team has already been invited to publish the results of their research in the Journal of Agriculture, Food Systems and Community Development.

In addition to assisting with the project design and grant application, the Auburn University Food Systems Institute will provide future assistance with assessment. Other grants AUFSI has assisted with include the following:

**Pending**

- “Food Entrepreneur Institute,” Jessie Ball DuPont Foundation ($150,000) (AUFSI)
- “Antibiotic resistance of Listeria monocytogenes, Escherichia coli O157:H7 and Salmonella spp. in cattle treated by low doses and therapeutic doses of antibiotics,” Agriculture Research Initiative (USDA) ($800,000) (Sue Duran)
- “Using edible mushroom Clitocybe nuda extract to control foodborne pathogens on fresh and fresh-cut fruits and vegetables,” Agriculture Food Research Initiative (USDA) ($425,000) (Tung-Shi Huang)
In helping research faculty with grant proposals, AUFSI does much more than just piece together technical information. We are involved from the beginning to the end of the grant-writing process to help increase the likelihood the grant will be awarded.

Beginning with a grant template, we help ensure that collaborating faculty include all requirements from a Request for Proposal (RFP). We collect all the necessary information—curriculum vitae, conflict of interest forms, background information on applicants, and more—and organize meetings and teleconferences. We compile drafts and make as many revisions as necessary to get the proposal just right. In addition, our assessment specialist helps devise an evaluation plan, often a key part of a proposal.

Through our experience writing different types of proposals, we are often familiar with the specific kinds of information grant selection committees want. Carefully organized information and persuasive wording can highlight important aspects of a proposal and increase the chances of funding. We also provide assistance with budgets.

Not only do we help write and compile the grant, we take a proactive approach by searching for RFPs in Auburn’s strong research areas. For that reason, we are building a database of core faculty’s research interests as well as building connections with other universities for collaboration on proposals.

Near the end of the grant-writing process, AUFSI works with the Office of Sponsored Programs to get approvals, and we submit the proposal in the specific manner the RFP designates. And if a grant award is received, we assist with post-grant management.

Grant assistance is a key part of the AUFSI mission, from finding grant opportunities to writing a persuasive proposal using the proper format to meeting necessary deadlines. In short, we’re here to help.

Submitted (Not funded)

- “Mitigating the risk of Salmonella Enteritidis and Salmonella spp. in shell eggs and egg products through multidisciplinary research, education and outreach programs,” Agriculture Food Research Initiative (USDA) ($2,500,000) (Manpreet Singh)
- “GREATS,” National Integrated Food Safety Initiative (USDA) ($750,000) (Donald Mulvaney)
- “Studies of potential impact of oil and dispersants on the absorption of drugs and environmental chemicals,” Gulf of Mexico Research Institute ($2,300,000) (Ravis)
- “Development of an interdisciplinary food systems graduate certificate program to enhance food systems knowledge across disciplines to help address national shortages in food and agriculture systems,” National Integrated Food Safety Initiative (USDA) ($238,300) (Pat Curtis)
- “E-FAVE: Ensuring food animal veterinarians,” National Integrated Food Safety Initiative (USDA) ($600,000) (Donald Mulvaney)
- “Using interactive games to teach poultry safety,” National Integrated Food Safety Initiative (USDA) ($300,000) (Pat Curtis)

Grant assistance: Key part of AUFSI mission

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Egg safety: Making a case for cages

Consumers should not be concerned about buying eggs without organic or other speciality labels, according to an article in the August/September 2012 edition of *Food Safety Magazine*. Egg safety became a hot issue after a 2010 recall of more than half a million shell eggs because of concerns about *Salmonella* contamination. However, eggs from an organic farm were recalled just a year later, highlighting that *Salmonella* poses a slight risk in all eggs. The article discussed the different ways *Salmonella* infects eggs and how today it is a common misconception that the chicken housing systems used in most large laying facilities, known as “battery cages,” are to blame for an increase in salmonellosis. In fact, there are safety risks associated with organic eggs derived from cage-free and free-range production systems as well. In some ways, these environments are more risky because of the prevalence of *Salmonella* in nature, particularly soil. A study on egg quality and safety also detected *Listeria* in both environments. Hen mortality is also a greater issue in cage-free environments because of the aggressiveness among hens. The bottom line, the article states, is that speciality eggs are no safer than conventional eggs, and because of stringent new FDA Egg Safety rules, all eggs are relatively safe to eat.

Giving thanks for safe oysters

Nearly three years after the disastrous BP oil spill, the Gulf Coast is still battling perceptions that its seafood is unsafe to eat. Oysters in particular are fighting hard to reclaim their good name. This has been true even in the “safe” months for oyster consumption, including September, October, November and December. In November 2012, the news outlet WTVM in Columbus, Ga., and several other publications reported that Thanksgiving is one of the most popular times to eat seafood, and even after the oil spill, one of the safest. AU core faculty member Cova Arias noted that the pathogen *Vibrio vulnificus*, which can cause illness in people with weak immune systems, is more commonly found in oysters during the hot summer months. The article also noted that although these treats from the sea are safe to enjoy with your juicy turkey, they have been more expensive since the oil spill.

Questions surround FSMA

The purpose of the Food Safety Modernization Act (FSMA), signed into law by the president in 2011, is to shift the focus of the Food and Drug Administration (FDA) away from responding to problems to preventing them in the first place. Seafood importers in particular are facing many unanswered questions about the law, an issue addressed in the *Food Safety Magazine* article “FSMA Era Opens with Uncertainties for Seafood.” One of the law’s priorities is a new system of import oversight, and an estimated 80 percent of seafood consumed by Americans is imported. The confusion results from the fact that specific FSMA regulations have not yet been released. It is likely that domestic seafood producers won’t see big changes because of safety systems already in place, but the impact for seafood importers is the real question. Importers have safety measures in place, but there is a widespread perception that international seafood suppliers don’t always follow the rules, and importers don’t always enforce the rules. FSMA calls for the creation of a foreign supplier verification program and more frequent inspections of foreign food facilities that import to the U.S. But it is unknown how exactly new regulations will take shape, how much they will cost, and if they will even be final. The FDA says it takes time to build a new safety program and that it is carefully creating a process for establishing this new program.

Throughout the year, AUFSI staff and core faculty generate news articles related to important issues in food systems. Here is a round-up of some articles that appeared in the last year.
On the Horizon

The AUFSI staff and Core Faculty have made great strides toward accomplishing AUFSI goals and objectives in the last year. We also have made good progress on some long-term objectives, including obtaining funding to maintain staff and required resources.

We’ve also progressed in our effort to translate collaborative innovations and discoveries by establishing a working relationship with the Auburn University Technology Transfer Office. We have also made necessary industry contacts to explore placing equipment vital to AUFSI objectives on the Auburn campus. However, there is still plenty of work to do to fully accomplish these long-term objectives and others.

AUFSI continues to work closely with academic and Alabama Cooperative Extension programs and is working on proactive technology recruitment and establishing technology development incentives for faculty. We also plan to conduct active marketing for external licensing and investment and translate food safety innovations and concepts to stakeholder communities, including government, suppliers, farmers, producers, distributors, and consumers.

AUFSI also hopes to expand into K-12 schools by integrating food safety into health education classes. To accomplish this goal, we’ll need to develop a comprehensive plan that includes teacher training, online modules, and curriculum integration.

One important focus will be providing leadership development opportunities for senior faculty and mentoring for young faculty. In the future, AUFSI also will also develop a database to track submitted grants and make it easy to find faculty with common interests and useful contacts.
Meet the team carrying out the AUFSI mission.

DR. PATRICIA CURTIS
AUFSI Director

Dr. Patricia Curtis joined the Auburn faculty in 2002 as a professor and director of the Poultry Products Safety and Quality Peaks of Excellence Program. In 2008, she was named interim director of the National Egg Processing Center, a partnership between eight institutions and industry. Curtis holds a bachelor’s degree in home economics education from Texas Women’s University and master’s and doctoral degrees in food science and technology from Texas A&M. She was an Extension specialist for poultry processing for several years. Her interests include food law and distance education in science. Her many awards include the American Distance Education Council’s Excellence in Distance Education Award (2000).

MARCIA KLOEPPER
Technology Specialist

Marcia Owens Kloeppe is coordinator for AUFSI technology projects and activities that use technology to support the mission of AUFSI. She has experience in the banking industry as a senior systems consultant and application programmer, utilizing Structured Analysis and its associated design techniques. She holds a degree in mathematics from the University of Northern Colorado.

JACQUELINE KOCHAK
Communications Specialist

Jacque Kochak handles grant writing and communications projects for AUFSI, including brochures, the annual report, and press releases. An award-winning writer and editor, her background is in newspapers, the trade press, and association management. Kochak holds a degree from the University of Kansas.

KELLIE WILSON
Contracts and Grants

Kellie Wilson is responsible for AUFSI financial management and assists with all pre-and post-award management of sponsored research funding. She holds an accounting degree from the University of Mobile and has nine years experience with sponsored research. AUFSI shares her services with the Auburn University Environmental Institute.

DR. REGINA HALPIN
Assessment Specialist

Dr. Regina Halpin is responsible for developing and conducting the program evaluation plan and project assessments for AUFSI. For the past 11 years, she has served as an independent consultant, conducting program evaluations and assessments at Auburn University. Previously, she was
an associate professor at Mississippi State, where she taught graduate courses in research design and evaluation and conducted research on the effective use of technology in K-12 instruction. Dr. Halpin holds a bachelor’s degree in applied mathematics as well as master’s and doctoral degrees in secondary mathematics education, all from Auburn University.

**REGINA CRAPPS**

*Academic Program Administrator*

Regina Crapps has a background in human resources, financial analysis, and class and workshop facilitation and holds a degree in human resources from Auburn University-Montgomery. She handles registration and payment for classes and pulls together all the details of delivering course materials, providing information for students, and calculating CEUs.

**LESLEY PARSONS**

*Research Liaison*

Leslie Parsons is the Research Program Development Office liaison to AUFSI for activities related to business operations, public relations, marketing, and communications. She holds a bachelor’s degree in economics and is the former director of development for the College of Liberal Arts and the Jule Collins Smith Museum of Fine Art.

**REBECCA LONG**

*Project Management*

Rebecca Long is the program manager for the Research Program Development Office and is responsible for project management activities in AUFSI. She holds a bachelor’s degree from the College of Architecture, Design and Construction at Auburn University and has held numerous industry positions worldwide in design, construction management, and project management.

**AUFSI adds two new Working Groups**

To bring faculty from different disciplines together, AUFSI utilizes Working Groups. Faculty members often come together for the first time to discuss a potential funding opportunity and find they like sharing ideas so much that they come up with new ideas for future projects.

AUFSI’s two newest Working Groups are the Diabetes and Obesity Working Group and the Rural Studio Working Group. The diabetes and obesity group came together because faculty expressed interest, and the Rural Studio group coalesced because AUFSI director Pat Curtis visited the well-known Rural Studio project in west Alabama with Vini Nathan, dean of the College of Architecture, Design and Construction. Curtis came away convinced that there were numerous opportunities for collaboration between AUFSI and the Rural Studio.
AUFSI may be getting a new home

The Auburn University Food Systems Institute may soon be moving to space in the new Center for Advanced Science, Innovation, and Commerce building, located in the Auburn Research Park.

The move would place AUFSI in the same building as a proposed new food safety cluster, which would include a Level 2 processing facility built according to USDA and FDA processing facility specifications. The lab would be utilized by meat, poultry, and food scientists.

A second lab in the proposed cluster would be used for testing and detecting foodborne pathogens and analyzing food products. The lab would perform standard culturing and analyses of foodborne pathogens, using the same subtyping procedures used by the Centers for Disease Control to track index strains. Biosensors developed by researchers with the AU Detection and Food Safety Center would be used to detect pathogens, allergens, and other contaminants.

A third lab in the cluster would meet both the engineering and microbial requirements needed to support Auburn’s research into food traceability—the ability to trace the history, application, or location of a food product.

The new location would keep AUFSI close to the Auburn Business Incubator, which would be important as AUFSI’s Virtual Food Entrepreneur Initiative is developed.

If the additional space becomes a reality, AUFSI hopes to offer rotating office space for core faculty as part of plans for mentoring new faculty and offering leadership development opportunities to established faculty.
At the last meeting of the AUFSI Advisory Board: Front row, left to right, are Dr. Charles Savrda, interim dean, College of Sciences & Mathematics; Dr. William Batchelor, dean, College of Agriculture and director, Alabama Agricultural Experiment Stations; Dr. Paula Bobrowski, associate dean, College of Liberal Arts. Back row, left to right, are Dr. Carl A. Pinkert, associate vice president for research; Dr. Chris Roberts, dean of the College of Engineering; Dr. Gregg E. Newschwander, dean, School of Nursing; and Dr. George T. Flowers, dean, Graduate School. Not pictured: Dr. Vini Nathan, dean, College of Architecture, Design & Construction; Dr. Bill C. Hardgrave, dean, College of Business; and Dr. Calvin Johnson, dean, College of Veterinary Medicine.