



Inside this Issue:

Roberts Named Head of Food Science Department	1
Alumnus creates first endowed professorship in Food Science	2
Student Stories:	
Food Science major returns to France	3
Seeking balance between volleyball, food science	3
Food science major tastes international trade	4
Featured Faculty	
Dr. Kerry Kaylegian	5
Dr. Sara Milillo	5
Featured Staff	
Kelly Klaiber	6
Rachel Primrose	6
Creamery News	7
Recent Awards	8
Tawfik Sharkasi receives Penn State's 2012 Alumni Fellow Award	9
Food Industry Group Student Leadership Awards	10
Food Science students place high at national product development event	11
Student team creates winning dish in meats conference competition	12
Penn State Dairy Products Evaluation Team places high in contest	13
Calendar of Events	14

Food Science Digest is published by the Department of Food Science Communications Committee

Roberts Named Head of Food Science Department

Robert Roberts, Ph.D., professor of Food Science, was named Head of the Food Science Department effective March 11, 2013. Dr. Roberts served as Interim Head for the past 10 months.

Roberts received his B.S. in dairy technology from the University of Vermont, his M.S. in dairy science from South Dakota State and his Ph.D. in food science from the University of Minnesota. He joined the Food Science Department at Penn State in 1991.



Dr. Robert Roberts

Dr. Roberts is responsible for teaching a number of courses, including "Introduction to Food Science," "Chemical Methods of Food Analysis," and "Science and Technology of Dairy Products Processing" to seniors in the food science major. In 1999, Dr. Roberts assumed responsibility for dairy foods processing outreach efforts at Penn State. In this role he organizes and directs the 121-year-old Penn State Ice Cream Short Course, Ice Cream 101, and the Penn State Cultured Dairy Products Short Course.

His research program has focused on the microbiology and technology of fermented dairy products. Current work is focused on characterization of probiotic bifidobacteria, development of molecular methods for strain-level differentiation of *Bifidobacterium animalis* subsp. *lactis*, evaluation of the effects of a yogurt-based beverage containing *B. animalis* subsp. *lactis* on the health of children, and development of methods for studying strain dynamics during fermentation of yogurt.

Dr. Roberts has received the Penn State College of Agricultural Sciences Alumni Society Academic Advising Award (May 2000) and The Milk Industry Foundation Teaching Award in Dairy Science from the ADSA (July 2007), and he was selected as an Outstanding Alumnus of the University of Vermont's College of Agricultural and Life Sciences (May 2008). He is an active member of ADSA, the Institute of Food Technologists (IFT), and the American Society for Microbiology (ASM). He previously served as a member of the ADSA Board of Directors from 2005 to 2007, and served as President of ADSA in 2012.

Alumnus creates first endowed professorship in Food Science

Penn State News



Dr. Larry Beuchat

A distinguished researcher in the field of food microbiology has created the first endowed professorship in Penn State's Department of Food Science in the College of Agricultural Sciences. Dr. Larry Beuchat '65 Agr created the Dr. Larry Beuchat Professorship in Food Microbiology with a gift of \$1 million to recognize the Penn State faculty who inspired him and to encourage a new generation of researchers.

"I got my start at Penn State," Dr. Beuchat said. "The gift is a return for the effort, time, and inspiration I received in my food microbiology classes at Penn State. Now as a faculty member myself, I've seen so many young developing scientists grow in understanding the field of food microbiology, and it's been inspiring to see many of these young people go on to contribute to the field. I thought this professorship would be a good way to support their efforts."

The Dr. Larry Beuchat Professorship in Food Microbiology will provide a faculty member with funds to conduct new research, to extend knowledge to industry and the public, and to support undergraduate and graduate students' work. This full professorship will join two early career professorships already established in the department.

"A named professorship is an honor," said Dr. Bob Roberts, head of Penn State's Department of Food Science. "Because he's also a professional in this area, Dr. Beuchat's gift is an honor and testament to the kind of work we are doing at Penn State. Food safety is a national and international priority, and this endowment will provide the Beuchat Professor with funds to take risks with his or her research and push the field forward."

Dr. Beuchat credits the courses he took at Penn State as an undergraduate with providing him the inspiration to dedicate his life's work to food science. A food microbiology course was incredibly inspirational, while a food processing course, then taught in a laboratory by Beaver Stadium, provided him with hands-on learning that further motivated him to study these topics.

"I hope the professorship will expand and strengthen the already strong food microbiology program at Penn State," Dr. Beuchat said. "While a professor may not have an extension or outreach appointment, he or she may field telephone calls or attend meetings to share his or her knowledge. I created the Beuchat Professorship with the hopes of facilitating the spread of fundamental and applied discoveries to future generations of students, industry, and the public."

A native of Guys Mills, Pennsylvania, Dr. Beuchat earned his master's and doctoral degrees from Michigan State University before working for Quaker Oats in research and development. He then embarked on a career in academia at the University of Georgia, where he currently serves as a semi-retired distinguished research professor of food microbiology at the Center for Food Safety. He has published more than 500 refereed scientific articles and authored or co-authored five books on the topics of food safety, foodborne infections and intoxication, and spoilage issues that are still commonplace around the globe. As of 2005, he was the third most-cited agricultural scientist in the world.

The Penn State Department of Food Science is ranked among the top programs in the nation, according to the National Research Council, with an undergraduate enrollment of 220 and graduate enrollment of 40 students in M.S. and Ph.D. programs. Food safety is a primary focus in research and expertise of the faculty.

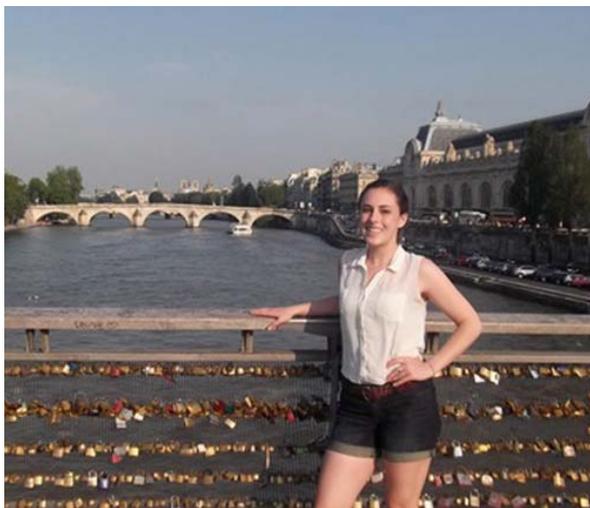
The Dr. Larry Beuchat Professorship will support *For the Future: The Campaign for Penn State Students*, a University-wide fundraising effort directed toward a shared vision of Penn State as the most comprehensive, student-centered research university in America. The University is engaging Penn State's alumni and friends as partners in achieving six key objectives: ensuring student access and opportunity, enhancing honors education, enriching the student experience, building faculty strength and capacity, fostering discovery and creativity, and sustaining the University's tradition of quality. The *For the Future* campaign is the most ambitious effort of its kind in Penn State's history, with the goal of securing \$2 billion by 2014.

Student Stories:

Ag News

Food Science major returns to France

Penn State senior Meghan Kane visited France not once, but twice through programs offered by the College of Agricultural Sciences.



Meghan Kane posed on a bridge in Paris.

A Food Science major with a minor in French, the Maple Glen, Pa., native enrolled in an embedded course last year that focused on U.S. and French agricultural systems. This year she was asked to participate as a teaching assistant for the course.

Kane and her fellow students spent two weeks learning firsthand in France after the semester was over.

“The goal of the course was to examine the horticultural food science, farm to fork processes, marketing and manufacturing, and policy and legislation of each country,” Kane said. “The students learned about each of these aspects by focusing on four case studies on cheese, wine, strawberries and canola seed.”

Her role was to teach students basic French lessons before they arrived overseas. “I was kind of a liaison,” she said. “Before we left, I taught them how to introduce themselves and to order food, things like that. My goal was to prepare them before they arrived so they would be able to get the most out of their experience.”

Once they were in France, Kane helped translate and

was a tour guide of sorts for the other students.

During their two-week stay, Kane and the other students heard presentations on French perspectives on their own agrarian systems at a research center. They also took trips to the Kitchen Gardens and Castle at Versailles, as well as other museums and monuments around Paris.

The class also visited the Rungis Market — the largest wholesale market in the world — stopped at an organic farm where they learned about French farming practices, and visited the Perrier and Vazart Coquant champagne houses.

“It was a great experience,” Kane said. “It was satisfying going back a second time because I got to see a lot that I hadn’t the first time. I just loved being able to practice my French and learn more about the culture.”

Seeking balance between volleyball, food science

Maggie Harding has been watching Penn State volleyball since she was 5 years old, never dreaming that playing the sport herself in a fifth-grade gym class would lead to a spot on the very team she idolized.



Maggie Harding on the court.

As a freshman in 2010, Harding was a preferred walk-on with the Penn State women’s volleyball team, which is renowned for having won four consecutive National Collegiate Athletic Association titles in the past five

continued on page 4

years. She was present for the most recent championship in 2010.

As a sophomore majoring in Food Science, Harding was named Academic All-Big Ten with a 4.0 grade point average in the fall of 2011. "I take school very seriously," she said. "It's nice to be recognized for having good grades and being a part of an amazing team."

It's a stiff challenge to achieve the right balance between academics and varsity athletics, Harding noted. She decided on her major after years of watching the Food Network and after a teacher had given a lesson on making bread.

"I loved the connection between food and science," Harding said. "I looked for a college with a good volleyball program and food science program. I picked Penn State because it is one of the top food science schools in the country and has a great volleyball program. I got the best of both worlds and never looked back."

This past fall, the team's final record was 25-8, despite the loss of six seniors. There were only two seniors on this year's team, and they graduated in the spring.

"We have to carry on the Penn State program — the priority was to stay on track as much as we could. It was a good season, but we didn't fulfill our full potential. We're working hard for the coming fall."

Some former Penn State volleyball standouts play the sport professionally in Europe after graduation, but right now Harding is considering graduate school. She plans to explore different aspects of her major but knows she wants to have a job in food science, possibly in product development.

Food science major tastes international trade

You don't have to be in a study-abroad program to get traveling experience, Natalie Masters can tell you. The Penn State food science major made her way through Chile during the University's 2011 spring break as part of an embedded course trip.

Through a horticulture class, the Pittsburgh native and 18 other students toured four Chilean cities to learn

the processes, challenges and importance of international fruit trade.

Months earlier, the class's first meeting was held in Wegman's grocery store in State College, Pa., examining the produce section, exploring the origins of fruits and discussing the processes behind international fruit trade.

"It's valuable to have that knowledge when working in the food industry," she said. "We need to be more understanding and open minded when there is a recall, knowing the challenges of trying to bring the world's best produce to the United States."



Natalie Masters (front left) with other students on the trip to Chile.

With 19 students and three staff members on board, the Chilean tour started in Santiago, the country's capital, and made its way in a triangular path, traveling through the towns of Curico and Talca, before ending in Valparaiso. The students visited two or three sites each day, before having leisure time to experience the culture on their own.

"I loved going to restaurants and trying their cuisine. Everything is so different there," said Masters, now a senior. "I just love experiencing other cultures, and I think it's important for people to realize that not everyone in the world is like us in the United States."

The experience provided a well-rounded picture of the global trade system and helped narrow her career plans. "I eventually will have to pick a focus," she said. "So now I have a better understanding."

Featured Faculty

Welcome to the featured faculty column. Our intent is to increase awareness of the breadth and expertise of the Food Science Department. This edition we are featuring Dr. Kerry Kaylegian and Dr. Sara Milillo.

Dr. Kerry Kaylegian

Dairy Foods Extension & Research Associate



Kerry Kaylegian

Dr. Kerry E. Kaylegian is serving a new role in the Department of Food Science as a Dairy Foods Extension & Research Associate, effective July 2012. Kerry joined the department in February 2007 as the Pilot Plant Manager and Director of Industrial Outreach. Kerry obtained her B.S. and M.S in Food Science from the University of Wisconsin.

Her research at the University of Wisconsin focused on improving the functional properties of milkfat. She directed the Milkfat Fractionation Technology & Applications program at the Wisconsin Center for Dairy Research (CDR) for 10 years, and produced prototype fractions and specialty butters to support the commercialization of milkfat fractionation in the U.S.

She received her Ph.D. in Food Science from Cornell University, with a focus on milk analysis. Her post-doctoral fellowship at Cornell focused on raw milk consumption attitudes in New York State, and she wrote the core scientific content for the Milk Facts website.

Kerry developed Dairy Basics Workshops to address manufacturing quality and safety issues, and The Science and Art of Cheese Making Short Course. Kerry also directs the Pasteurizer Operator's Workshop and Fundamentals of Food Science Short Course. She is coach of the Penn State Collegiate Dairy Products Evaluation Team, which took 2nd place individual and team awards in butter at the national contest last fall. Kerry judges cheese and other dairy products for national and international cheese competitions.

Kerry is excited by the challenge of designing programs and providing support to a diverse industry that

has over 200 processors representing the spectrum from large Grade A plants to artisanal cheese makers to small farms selling raw milk.

Kerry continues a small research program on improving the nutritional and functional profile of milkfat and is getting involved in food safety research for dairy processors.

Kerry likes to combine her hobbies of cooking, gardening and glassblowing by creating cheese plates with condiments made from her garden and served on her own glassware.

Dr. Sara Milillo

Instructor and Student Services Coordinator



Sara Milillo

Dr. Sara R. Milillo, Instructor and Student Services Coordinator, joined the Food Science department in August 2012. Before coming to the Food Science department at Penn State, Sara was a Biology Faculty Fellow at the Community College of Allegheny County in Pittsburgh, Pennsylvania. Prior to that, she completed a USDA Postdoctoral Fellowship at the University of Arkansas in Fayetteville, Arkansas, and her Ph.D. at Cornell University in Ithaca, New York.

Sara's research interests are in food safety, specifically in how the bacterial foodborne pathogens *Listeria monocytogenes* and *Salmonella* come in contact with foods, survive through the food system, and cause disease.

Sara's research interests are in food safety, specifically in how the bacterial foodborne pathogens *Listeria monocytogenes* and *Salmonella* come in contact with foods, survive through the food system, and cause disease.

Sara is currently teaching two courses, Introduction to Food Science and Food: Facts and Fads. Her education interests are focused on advising and mentoring students, fostering engagement, and supporting curriculum development.

Sara is a proud Penn State alumnus (Bachelor's) and is excited to be back in Happy Valley!

Featured Staff

Kelly Klaiber

Instructional Support Specialist



Kelly Klaiber

Born and raised in Ridgway, PA, Kelly received her BS degree in Microbiology and a minor in Biochemistry from Penn State in 2007. She began her career with Nestle Purina Pet Care in Allentown, PA immediately following graduation. After completing a one year Management Trainee Program, she was offered the position of Quality Assistant at the

Allentown facility. As the Quality Assurance Assistant, Her responsibilities included, but were not limited to, trace recall coordinator, site sensory coordinator, consumer complaints data analyst, and analytical laboratory support. However, her major accomplishment while at Nestle Purina was leading the facility through ISO 22000/PAS 220 certification.

In March of 2010, Kelly and her husband relocated to Hollidaysburg, PA after her husband accepted a job with Grannas Brothers. During this transition period Kelly decided to pursue other interests, and obtained a M.ED in Middle and Secondary Instruction and her Pennsylvania Teaching Certificate in Biology from Edinboro University. In August of 2012, she joined the Penn State Food Science Department as the Teaching Laboratory Support Specialist. In this role, she primarily, assists faculty members and graduate teaching assistants with the instruction of undergraduate students in the teaching laboratories and the pilot plant processing areas. Additionally, she ensures that the laboratories and pilot plant facilities are well maintained and ready for classroom instruction.

Kelly and her husband currently live in Duncansville, PA and are anxiously awaiting the arrival of their first child in April.

Rachel Primrose

Sensory Evaluation Technician



Rachel Primrose

The Department of Food Science welcomes Rachel Primrose as its new Sensory Technologist of the Sensory Evaluation Center (SEC). Ms. Primrose serves as the primary liaison between the SEC and industrial partners and is responsible for the daily operations of the SEC. In addition, she assists in both consumer and research related testing. Rachel has been a member of the Penn State team since August 2012.

Prior to coming to Penn State, Rachel was employed by Custom Food, a private manufacturing company in Knoxville, TN working in the field of Quality Assurance. She also worked for a commercial sensory evaluation center. Rachel is a certified HACCP Manager, SQF Practitioner and ServSafe Manager.

Rachel is a native of Stroudsburg, Pennsylvania. She received her B.S. in Food Science from the University of Tennessee in Knoxville. Currently, she is pursuing a master's degree in Food Science from the Pennsylvania State University. In her free time Rachel enjoys cooking and traveling.

Creamery News

by Thomas Palchak, Creamery Manager

The Creamery said good-bye to our Robert Hay, our delivery driver. Bob retired in January of 2013. He made routine deliveries to all of the on-campus dining halls and eateries for the past seventeen years. Bob worked at Penn State for over thirty-two years. An early riser Bob was on the road making deliveries at five o'clock in the morning and did not finish until the afternoon. His work kept him busy and he forged many friendships on his routes, often receiving a free lunch or salad from the dining hall employees. He appeared in two Creamery videos on the PCN cable news outlet.



Robert Hay

Bob arrived at work each day with a smile on his face and ready to take care of incoming and outgoing shipments. He worked hard and was as reliable as a watch. We wish Bob all the best in his retirement and hope he visits often. Bob lives in Bellefonte.



Jim Newman

Jim Newman is our new delivery driver. We welcomed Jim to the Creamery on January 11, 2013. Jim comes to us from the College of Agricultural Sciences where he worked in the Publications Distribution Center. He has a lot of experience, his transition to the Creamery was very seamless and in just a few weeks Jim was on his

own making deliveries and receiving products and ingredients into the dairy plant. We are fortunate having Jim on board and he's already making significant contributions to our plant operations. Jim's been with Penn State for twenty three years.

The Creamery's yogurt production capacity was recently doubled due to ever increasing demand. Late

in the fall, we added a second 600 cone-bottom processor in our culture dairy products room. In March of 2013, we will install our new yogurt filling/packaging machine.

Beginning in May of 2013 we will begin installation of new food safety equipment in ice cream and yogurt production. New tamper evident systems will be added along with three metal detectors and one X-ray machine. There will be major modifications to process piping and materials handling equipment in the ice cream production area. Additionally we are working on our Food Defense/Food Safety Manual as partial compliance with the new Food Safety Modernization Act.

Creamery ice cream and milk shakes were featured in the recent movie release "*The Perks of Being a Wallflower*" starring Emma Watson. The movie's protagonist wants to attend Penn State and loves Creamery dairy products. The movie set requested Creamery ice cream containers, cups and pints bearing our logo. We obliged the request and shipped them off to Hollywood, CA!



Recent Awards

Maretzki recipient of Spirit of Internationalization Award



Audrey Maretzki

Congratulations to Dr. Audrey N. Maretzki, a 2013 Spirit of Internationalization Award recipient! The award is sponsored by the University Office of Global Programs and is presented to Penn State faculty, staff, students, and community members who went above and beyond their job duties or academic curriculum and exhibited a strong investment in

global engagement and/or women's empowerment in both their professional and personal lives. Audrey was nominated for the Spirit of Internationalization Award by the Board of Directors of the Centre County United Nations Association.

Hayes receives Roy C. Buck Faculty Award



John Hayes

Congratulations to Dr. John E. Hayes, the 2013 Roy C. Buck Faculty Award recipient! This endowed award honors and recognizes an untenured, tenure-track faculty member in the College of Agricultural Sciences, whose research involves the social or human sciences, for the best refereed article published in a scholarly journal in the previous two years.

Dr. Hayes received the award for his publication "Wine Expertise Predicts Taste Phenotype."

LaBorde recipient of Gamma Sigma Delta Award

Dr. Luke LaBorde is the recipient of this year's Gamma Sigma Delta Extension Award. Dr. LaBorde's work in Extension has focused on quality and safety of fruits, vegetables, and mushroom, and Good Agricultural Practices (GAP) for fresh produce and mushroom growers. He has developed numerous HACCP based food safety and sanitation programs for fruit, vegetable, and mushroom processors. He has been instrumental in providing technical assistance to food entrepreneurs and consumers through the development of various websites related to Home Food Preservation, educators, and producers. Dr. LaBorde developed and maintains the Science of Food Web blog found on the Food Science Department website. Congratulations to Dr. Luke LaBorde!



Luke LaBorde

Juanita Wolfe receives Ella Reagle Staff Assistant Award

Congratulations to Juanita Wolfe, the 2012 Ella Reagle Staff Assistant Award recipient! The Ella Reagle Staff Assistant Award is an annual award presented the College of Agricultural Sciences to recognize and honor staff assistants who have demonstrated dedication and commitment to the college and their work unit.



Juanita Wolfe

Brown receives Staff Laureate Leadership Award



James Brown

James Brown, assistant manager of Creamery operations, was the recipient of the 2012 College of Agricultural Sciences Staff Laureate Leadership Award. The Award was presented at the 2012 Spring College-wide Staff Meeting on May 23, 2012. This award honors a staff member who demonstrates leadership, high standards of performance, and serves as a positive role model for others.

Tawfik Sharkasi receives Penn State's 2012 Alumni Fellow Award

Ag News



Tawfik Sharkasi

Tawfik Sharkasi of Barrington, Ill., is one of nineteen Penn State alumni to be honored for their outstanding professional accomplishments and given the lifelong title of Alumni Fellow, the highest award given by the Penn State Alumni Association.

Tawfik Y. Sharkasi is vice president of innovation for the Asia Pacific region of Wm. Wrigley Jr. Company. Wrigley, a subsidiary of Mars, Inc., is a leading confections company that makes gum, mints, hard and chewy candies, and lollipops. Sharkasi's mission is to create a new research and development organization introducing product innovations primarily for the Asia Pacific region and eventually for global application.

Sharkasi graduated from Penn State in 1984, earning a doctorate in food science. He received his bachelor's degree from the University of Tripoli, Libya, and his master's degree in 1979 from Washington State University, both in food science. He has 28 years of global experience in leading research and development functions for multinational food corporations, including Nestlé, Kraft Foods Inc., PepsiCo Inc., and Wrigley. A member of the Institute of Food Technologists, Sharkasi holds six U.S. patents for food technologies.

Sharkasi serves on several advisory boards, including those of the Office of Research, College of Agricultural, Consumer, and Environmental Sciences at the University of Illinois at Urbana-Champaign, the Robert Morris University School of Business, and the Chicago Innovation Awards.

In 2009, Sharkasi received the Penn State College of Agricultural Sciences' Outstanding Alumni Award and was inducted into the college's Armsby Honor Society in 2010. He currently serves on the Penn State Food Science Advisory Board.

Sharkasi and his wife, Magda Fehema-Sharkasi, are life members of the Penn State Alumni Association and live in Barrington, Ill. They have two grown children: Nahil, a Kinect producer at Microsoft, and Adam, a mechanical engineer at Lockheed Martin.

Food Industry Group Student Leadership Awards

by Tom Dimick, Outreach Coordinator

Sponsored by the Penn State Food Industry Group, these annual awards recognize Penn State Food Science undergraduate or graduate students who demonstrate exemplary leadership, scholarship, community involvement, and volunteerism. The awards were presented on October 27, 2012 at the Food Industry Group Fall Board Meeting.

Undergraduate Student Leadership Award



Sara Calaman

Sara Calaman, a Senior in Food Science, is the 2012 recipient of the Food Industry Group Undergraduate Student Leadership Award.

Sara is an active member in the Food Science Club currently serving as the club's president. She is a member of the Penn State Ag Advocates representing the College of Agricultural

Sciences. Sara is an active member of Sigma Alpha Professional Agricultural Society where she has supported a wide range of efforts advancing the stature of Agricultural Sciences. As a member of Sigma Alpha, Sara organized efforts in the department to support Penn State Inter Fraternity Council/Pan Hellenic Dance marathon (THON).

Sara has coupled her academic success with a number of internships in the food industry. Most recently, Sara worked as an intern with Kraft Foods, Inc. where she gained valuable experience in research and development. In 2010 Sara completed an internship at Schreiber Foods. As part of the internship, she proposed solutions to control weights of products being produced to eliminate waste thereby saving the company money.

Sara is described as an outstanding student, focused on service, and developing her leadership skills by accepting challenge after challenge.

Graduate Student Leadership Award



Samantha Bennett

Samantha Bennett, a 2012 Masters candidate in Food Science, is the recipient of the Food Industry Group Graduate Student Leadership Award.

Samantha is an active member in several professional societies including, the Institute of Food Technologist (IFT), the Association of Chemoreception Sciences (ACheMS) and the Society of Sensory Professionals (SSP). As a graduate student, Samantha served as a mentor to several students under the Women in Science and Engineering (WISER) Program as part of a NASA Space Grant. Her mentoring efforts led to a published paper in the journal of Chemical Senses. She served as lead teaching assistant in a graduate level sensory course and served as a Graduate Representative for the students in the department.

Samantha has published in several professional journals including the Chemosensory Perception, Chemical Senses, and Food Quality and Preference, as well as presented numerous poster sessions at professional meetings nationally and Internationally.

Samantha's research at Penn State focused on *Chemesthesis and Bitterness of Natural and Synthetic Anti-inflammatory Stimuli*. She is currently employed at General Mills.



PENN STATE Food Industry Group

Food Science students place high at national product development event

Ag News

Penn State's Food Science Product Development Team recently was chosen as a finalist in the Student Culinology Competition, held in San Antonio, Texas, for creation of its "Spicy Chili Volcano Bites."

The cornbread minisnacks filled with a spicy pork chili were judged favorably in the competition held annually by Research Chefs Association, also known as RCA. Billing itself as the premier source of culinary and technical information for the food industry, the organization is committed to the advancement of culinology, which represents the blending of the culinary arts and food science and technology.

The RCA annually invites student teams to submit themed product proposals for the competition. This year, students were directed to develop a proposal for a Tex-Mex appetizer. Finalists shipped their product to the competition site. On the day of the competition, they created a fresh version of their concept product to be judged.

In June, the students traveled to Las Vegas for the Product Development Competition held by the Institute of Food Technologists Student Association. Penn State was one of six finalist teams. Their product — "Brew Bites," a snack made largely from spent grain left over from the brewing process and hop and malt extract — will be assessed by a panel of judges.

This competition is held annually and gives students the chance to take the skills and knowledge they learned in school and apply it to real-world situations. Each participating school's team develops a new food idea and

carries the concept through marketing and production, much like a commercial product-development team.

Entries consist of a proposal for a new food product. Judges then evaluate the potential success of product entries in today's market and technical problem-solving skills used in product development. The top six scoring teams then are asked to participate in the finals.

The Team was required to give an oral presentation of their product concept, participate in a poster display session and take part in a product-tasting session.

Though the team enjoys competing, senior team member Lauren Popescu noted that the real goal is to create new and innovative food products by applying the knowledge they've gained in their food science classes.

"We essentially go through the entire product-development process," she said. "We began the products such as a wine and cheese confection, a flavored yogurt spread and a portable parfait snack mix.

"Being on the team has helped me gain real, hands-on experience in product development," Popescu said. "This is something that typically can't be

provided in a classroom setting, and employers are always impressed when someone takes the initiative to actually apply what they've learned."

The competitions are excellent experiential learning opportunities for students, according to Edward Dudley, associate professor of food science, who advises the teams. "It requires them to pull together knowledge from all of their coursework and think very creatively about how to build and market a novel product," he said.

"Getting selected as a finalist in these competitions is quite an accomplishment," he added. "The faculty and staff in the Food Science Department are really proud of what these students have achieved."



Members of Food Science Product Development Team: (from left) Colleen Scott, Ryan McClafferty, Tabitha Lee, Lauren Popescu, and Sarah Mann.

Student team creates winning dish in meats conference competition

Ag News

A four-student team from Penn State's College of Agricultural Sciences recently finished first in the American Meat Science Association Reciprocal Meats Conference competition.



(from left) Kristen Stufft, Steve Bookbinder, Alyssa Dietrich and Sarah Doyle.

It was the University's initial entry into the annual contest. Team members included junior Food Science major Steve Bookbinder, of Weston, Fla., senior Animal Sciences majors Alyssa Dietrich, of Strausstown, and Kristen Stufft, of Lewistown, and recent graduate in Animal Sciences Sarah Doyle, of Red Lion. They were coached by graduate student Amanda Gipe, of Merced, Calif., who is pursuing a doctoral degree in Animal Science.

Held in Fargo, N.D., the conference required each team to come up with a unique dish that consisted of at least 50 percent meat. The concoctions were judged on flavor of the product, marketing presentation and display, HACCP (hazard analysis and critical control points) plan, and food safety inspection.

The theme of the competition this year was Ethnic Foods, and the Penn State team developed a Vietnamese dish the students called "Chao Toms."

"It was so good it blew the other 10 teams' recipes out of the water," Gipe said. "The group has been working together on the product since April. They are a smart

group of individuals and they would give anyone a run for their money."

The teams developed their products at their respective universities and then reheated them at the conference. During the reheating process, judges observed the students.

"Competition was stressful," Bookbinder said. "There were a lot of judges watching us at all times to make sure we were following food-safety practices and keeping food at the right temperatures."

Bookbinder was behind the idea for the Penn State team's product. "We found a recipe for a Vietnamese pork sausage wrapped around a piece of fresh sugar cane and immediately fell in love with it," he said. "I made this recipe before when I was cooking in New York City."

The team also had to set up a product show display, and participants of the Reciprocal Meats Conference were allowed to try the products that students developed. Dietrich contributed mostly to the marketing plan and display of the product.

"The judges felt our dish was innovative and unique," she explained. "Also, Vietnamese food recently has been considered 'trendy,' so I think the judges appreciated our ability to recognize food trends and create a dish that people would be willing to try."

Bookbinder believes the AMSA's Reciprocal Meats Conference is a great opportunity for undergraduate students to connect with meat-science professionals in both the industry and academia.

"To win this competition definitely has given Penn State more exposure at the national level in regard to meat science," he said. "We are looking forward to next year's conference to defend our title and again represent Penn State proudly."

Penn State Dairy Products Evaluation Team places high in contest

Ag News

A four-student team from Penn State's College of Agricultural Sciences recently finished second in the Collegiate Dairy Products Evaluation Contest. It was the University's first entry into the contest after a seven-year absence.



From left, Megan Woo, Kelsey Rogers, Kerry Kaylegian, Allison Hoy and Jennifer Updegrave

The Team was coached by Kerry Kaylegian, dairy foods research and extension associate. This contest was Kaylegian's first as head coach.

"It was great to have Penn State back in the Collegiate Dairy Products Evaluation Contest," she said. "We received a warm welcome from teams and coaches that have been involved in the contest for more than 30 years."

Held in Springfield, Mo., on Nov. 3, the teams consisted of 3 undergraduate students competing for prizes. Additionally, each school could have up to 2 undergraduate alternates and 2 graduate students participate in judging. The teams evaluated commercial samples of butter, Cheddar cheese, cottage cheese, vanilla ice cream, milk, and strawberry Swiss-style yogurt for flavor, appearance and body and texture attributes.

The products were judged on a defect scoring approach, meaning the judges looked for defects in the samples as compared to an "ideal" product. Each de-

fect could be described as slight, definite or pronounced. There were as many as 31 defects on the yogurt score card and as few as 15 defects on the milk score card.

All samples were prejudged and scored by expert judges. The goal of the contest was for the students to evaluate the samples and match the judges' defects and scores. The students had 35 minutes to judge each product category, followed by a five-minute rest period.

Sixteen teams competed in the national event. Allison Hoy placed 2nd in the individual butter competition. The Team placed 9th in all products, with rankings of 2nd in butter, 6th in milk, 10th in ice cream and cottage cheese, and 11th in yogurt and Cheddar.

"As a new coach, it was challenging to learn how to train the team for this competition," Kaylegian said. "I am thrilled that our team did so well in our first year back in the contest."

This publication is available in alternative media on request.

The Pennsylvania State University is committed to the policy that all persons shall have equal access to programs, facilities, admission, and employment without regard to personal characteristics not related to ability, performance, or qualifications as determined by University policy or by state or federal authorities. It is the policy of the University to maintain an academic and work environment free of discrimination, including harassment. The Pennsylvania State University prohibits discrimination and harassment against any person because of age, ancestry, color, disability or handicap, national origin, race, religious creed, sex, sexual orientation, or veteran status. Discrimination or harassment against faculty, staff, or students will not be tolerated at The Pennsylvania State University. Direct all inquiries regarding the nondiscrimination policy to the:

Affirmative Action Director,
The Pennsylvania State University
328 Boucke Building
University Park, PA 16802-2801
Tel 814-865-4700/V,
814-863-1150/TTY.

For further information on contact:

Department of Food Science
The Pennsylvania State University
202 Food Science Building
University Park, PA 16802
Phone: (814) 865-5444
Fax (814) 863-6132
<http://www.foodscience.psu.edu>

Calendar of Events

Mushroom Food Safety

March 26, 2013

Kennett Square, PA

Contacts: Martin Bucknavage, mwb124@psu.edu,
(814) 867-1839

Fundamentals of HACCP

March 27-28, 2013

Kennett Square, PA

Contacts: Martin Bucknavage, mwb124@psu.edu,
(814) 867-1839

Fundamentals of Food Science

May 13-16, 2013

University Park, PA

Contact: Dr. Kerry Kaylegian, kek14@psu.edu,
(814) 867-1379

Better Process Control School

April 22-25, 2013

University Park, PA

Contact: Dr. Stephanie Doores, sxd11@psu.edu,
(814) 863-2956

Food Microbiology Short Course

June 4-6, 2013

University Park, PA

Contact: Dr. Catherine Cutter, cnc3@psu.edu,
(814) 865-8862

Food and Airborne Fungi and Mycotoxins Short Course

June 25-27, 2013

University Park, PA

Contact: Dr. Hassan Gourma, hxg7@psu.edu,
(814) 865-8862

Fundamentals of HACCP

August 20-22, 2013

University Park, PA

Contact: Martin Bucknavage, mwb124@psu.edu,
(814) 867-1838

Venison 101

September 28, 2013

University Park, PA

Contact: Dr. Catherine Cutter, cnc3@psu.edu,
(814) 865-8862

For more information visit:

www.foodscience.psu.edu/events