Dr. Allen Foegeding awarded George J. & Rhoda W. Kriz Faculty Study Leave Endowment Award

In January, Allen Foegeding was presented with the George J. & Rhoda W. Kriz Faculty Study Leave Endowment Award. The award is open to all CALS faculty. In an effort to encourage CALS faculty scholarly leave, George J. and Rhoda W. Kriz established an endowment for off-campus scholarly assignments. Three cheers for Dr. Foegeding!

Seafood Laboratory Featured in Marine Science Exhibit

The NC Maritime Museum in Beaufort, hosted the “Science by the Sea,” a history of marine science research along the Crystal Coast. Featured in the exhibit was the work of the NCSU Seafood Laboratory, whose long history in Carteret County started in the early 1960s by the department’s first Seafood Extension Specialist, Dr. Frank Thomas. The Seafood Lab loaned the mechanical fish deboning device (pictured) obtained by Dr. Thomas in the early 1970s from Japan for research using underutilized fish species.

New Entrepreneurial Program Contact Announced

Extension Associate Tristan Berry Laundon has joined the Department of Food, Bioprocessing and Nutrition Sciences Extension Program as Entrepreneurial Program Assistant. She replaces JoAnna Foegeding, Research Analyst, who managed this important industry program for over twelve years. Laundon will serve as the primary contact for entrepreneurs and to food businesses that need assistance in classifying food products and labeling. She also will provide technical services in determining the safety of acid and acidified foods under the direction of Dr. Fletcher Arritt. She earned her Master of Science in Food Science from NC State University in 2008. Contact her at 919.513.2090 or email tkberry@ncsu.edu.

IFT Scholarships

For the 2010 – 2011 school year, four graduate students were awarded Institute of Food Technologists (IFT) scholarships. Graduate winners Leann Barden, Marjorie Griffiths, Kelsey Ryan and Clint Stevenson. Two undergraduate students were also awarded IFT scholarships, Amanda Kaufman and Aaron Massey. Conferring on a national level, these scholarships are funded by Feeding Tomorrow, the Foundation of the Institute of Food Technologists, which provides scholarship funding for undergraduate and graduate students pursuing degrees in food science. Congratulations to our IFT Scholars!
NC State’s Todd Klaenhammer Named AAAS Fellow
(excerpted from NC State Newsroom article by Mick Kulikowski)

Dr. Todd R. Klaenhammer of Raleigh, a North Carolina State University Distinguished University Professor and William Neal Reynolds Distinguished Professor in the Department of Food, Bioprocessing & Nutrition Sciences, the Department of Microbiology and the Department of Genetics, has been elected Fellow of the American Association for the Advancement of Science (AAAS).

Klaenhammer was honored for “distinguished international contributions to research and for leadership in the fields of microbiology and genomics of lactic acid bacteria used beneficially in bioprocessing and health.”

Klaenhammer studies genetic approaches to improving lactic acid bacteria, the “good” bacteria used as starter cultures and probiotics in fermented food and dairy products, like yogurt. His recent research efforts have investigated the molecular mechanisms responsible for the survival and activity of probiotic bacteria in the gastrointestinal tract and then used that information to develop live bacterial delivery systems for oral vaccines.

Klaenhammer also directs the Southeast Dairy Foods Research Center, which conducts research and develops and applies new technologies for processing of milk and its components into dairy products and ingredients with improved health, safety, quality and expanded functionalities.

Each year, the AAAS Council – the policymaking body of the society – elects members whose “efforts on behalf of the advancement of science or its applications are scientifically or socially distinguished.” Fellows are nominated by their peers and undergo an extensive review process.

Klaenhammer will be recognized at the AAAS annual meeting in San Diego in February 2010.

Sweet Oasis – Charming Cherub Contest

For Valentine’s Day, the FBNS Social and Recreation Committee saw the need for some sweet fun to beat the winter blahs and introduced “Sweet Oasis” – a celebration of sweets and departmental fellowship. Festivities included the awarding of the mystery Charming Cherub Contest – a collection of baby/toddler pictures of faculty, staff and graduate students displayed on the room 100 bulletin board in advance of the Sweet event. The winner was Sabrina Whitley-Ferrell who received some sweets for her efforts.
February 2010

A New Phister

George Alfred Phister was born on Saturday, Feb 27 at 5:51 PM, 7 lb, 7 oz, to proud parents Helen Rawsthorne and Trevor Phister. George shares his Mother's birthday. He is a beautiful little boy (lots of blond hair), lucky to be born to wonderful parents. Congratulations, Helen and Trevor!

March 2010

Keith Harris Receives 2009 – 2010 University Outstanding Teacher Award & Inducted into Academy of Outstanding Teachers

Dr. Keith Harris was chosen as a recipient of the 2009 – 2010 Outstanding Teacher award for his work and delivery of FS 201: Food Science and the Consumer. The class is now a requirement for all Food Science and Nutrition majors and is a popular elective choice throughout the university. Approximately nineteen faculty who have demonstrated outstanding teaching are chosen each year from the entire university. Initial nominations are made in the colleges, and the deans determine the nominations to forward to the Provost. Congratulations to Keith on a well deserved honor.

Art To Wear

This year, Art to Wear had a new name: Food to Wear. The popular N.C. State University fashion show, which annually blends the best of fashion and art coming out of State’s College of Design and College of Textiles, had a newcomer taking home the judges' top prize Wednesday night.

Kirk Smith, a food science senior from the College of Agriculture and Life Sciences, presented an entire collection made from food packaging. Smith may be the only student without ties to the College of Design or the College of Textiles ever to be in the show. To the left is an example of one of his creations – a dress made entirely of beer cans.

College Bowl at NC State

In April, the Food Science Club hosted an IFT Student Association Central Atlantic Area College Bowl conference and mock competition that strengthened the bonds between four of the area Food Science programs and gave each College Bowl teams a chance to compete before the National IFT College Bowl competition in July. School’s represented included NC State, Delaware, Maryland and Virginia Tech. Coordinated by Food Science Club president, Amanda Stephens, a full weekend of events met the faculty and student guests from visiting schools. Keynote speaker was Dr. Marianne Gillette, currently the Vice President of Technical Competencies and Platforms for McCormick & Company, Inc. and president-elect of IFT. Her talk regarding “Careers in Food Science” updated the audiences’ look at where food science majors are going after graduation and new niches that students should consider for future employment.
A highlight of the weekend was, of course, food! Schaub staff and faculty assisted the club in feeding the crowd a pleasing selection of hot dogs, hamburgers, baked beans, cookies and more as they visited and got to know more about each schools focuses and academic programs. Another great job by the FSC and friends!

Hot Dog Lunch

In April, the Social & Recreation Committee once again hosted the department at the annual Hot Dog Lunch. Shirley Liles and Sabrina Whitley-Ferrell, the perfect “partners in crime”, bravely stood over the flaming grill until all the hot dogs and hamburgers were cooked to perfection. In addition to the delicious hot dogs and hamburgers, a spread fit to feed a football team was provided including baked beans, slaw, chips and all the fixings. There were even Veggie burgers for the vegetarians among us.

The food was terrific and the departmental fellowship as much as ever. Thank you to all those on the Social & Recreation Committee that keep us close through the celebration of food and fun.
FBNS Awards Banquet

The annual departmental awards banquet was held on April 29th at the Park Alumni Center on Centennial Campus. Undergraduate students from all three majors and graduate students being honored for scholarship awards in the 2009 – 2010 were present in force as were faculty, staff, scholarship donors and guests for the yearly occasion. The IFT Dogwood chapter also joined in the event after their regularly scheduled meeting was complete for the day.

Awards presented included Dairy Bar Scholarships, Departmental Scholarships and annual Food Science awards. The three Food Science awards were the B. M. Newell Outstanding Senior award, the Forbes Leadership award and the Leonard Crouch top Junior Scholar. Recipients were Aaron Massey, Sara Cohen and Kaitlyn Panetta respectively. Students were recognized with applause, a check and the issuance of their name on the departmental plaque for the respective awards.

It was a wonderfully coordinated night with delicious food, fun and fellowship among the faculty, staff, students and their guests. Thank you to the Food Science Club who did a truly professional job of coordinating such a memorable evening at a beautiful place.

Courtney Page Celebrated

In the spring, a reception was held in the Schaub Hall Lobby for a special member of our FBNS family, Ms. Courtney Page, in celebration of her forthcoming wedding. As the custodian for the second and third floors of Schaub, Courtney helps keep the building clean, safe and full of smiles.

Courtney later married Tavores Hart on June 26th, 2010 and honeymooned in the Bahamas. We are very happy for you, Mrs. Courtney P. Hart!
Spring Graduation-Stories, Pictures, etc.

The FBNS Spring 2010 Graduation festivities were held at St. Mary's Pittman Auditorium on May 15th and boasted so many undergraduate degrees being awarded between the three majors, that two separate ceremonies were planned. The Food Science and Bioprocessing Science program was held first at 1:30pm with four Bioprocessing Science undergraduates finishing – the first ever to complete the degree – and 18 Food Science students concluding their B.S. degrees. Nine graduate students celebrated the finishing of their Masters and Ph.D. work. The Nutrition Science program was held second at 2:30pm celebrating the completion of 35 Nutrition undergraduate degrees and two Master of Nutrition degrees.

A reception immediately followed each ceremony at the St. Mary’s College Dining Hall where guests were served a variety of cookies, refreshments, punch and Howling Cow ice cream. Many thanks to Juliebeth Briseno and the Graduation Committee for the excellent hospitality shown to our students and their families.
Spring 2010 Nutrition Science B.S.
Graduates

Bachelors of Science Degrees Awarded

Bioprocessing Science
Coordinator: Dr. Christopher Daubert
Nicholas J. Armstrong¹
Chelsea V. Barnum
Robert J. Dismuke
Meredith A. Root

Food Science
Coordinator: Dr. Brian E. Farkas
Keri C. Cates
Justin E. Chete
Terese J. Ellis
Sarah Elizabeth Greene
Marjorie R. Griffiths³
Benjamen A. Harman
Krystal D. Matthews
Robert P. McNeil
Tsz Kwan Ngn
Ellen L. Orabone²³
Brett T. Peatross
Ashley M. Slusser
Kirk T. Smith
Mary S. Smith
Corey A. Troutman
Joshua B. Walker
Matthew C. Watts
Samantha S. White

Nutrition Science
Coordinator: Dr. Sarah L. Ash
Mary M. Andrews
Stephanie E. Barnhardt
Jamie L. Becker
Sara A. Bell
Christopher M. Branson
Lindsey P. Brantley²
Thomas K. Chamberlain
Justin E. Chete
Natalie K. Cooke¹
Gabrielle F. Daniel
Patrice G. Dason
Haley J. Donaldson
Rebecca M. Durham
Shaina R. Fullwood
Chiara C. Fagan
Amber A. Gooding
Kea C. Gray
Byron A. Green
Gloria E. Hardy

Caroline C. Holland
Rebecca A. Holmes
Elizabeth M. Isak¹
Lisa J. Kretchman
Johanna M. Lopez
Natisha Mandadi
Katherine L. McMillen
Janelle M. O’Hearn
Chelsea A Phillips
Alice A. Raad
Sandra L. Ruan
Holland E. Starks
Elizabeth P. Steed
Katherine M. Tigani
Marie L. Tsiolkas

Master of Food Science Degrees Awarded (non-thesis)
Zhenhua Jiang
under the direction of Dr. Jonathan C. Allen
Katherine D. Paske
under the direction of Dr. Jonathan C. Allen

Master of Science Degrees Awarded
Miniayah T. DeBruce
under the direction of Drs. Lisa Dean & Timothy Sanders
Craig B. Koskiniemi
under the direction of Dr. Van-Den Truong
Drew M. Watson
under the direction of Dr. MaryAnne Drake
Madison L. Whitley
under the direction of Drs. Lisa Dean & Timothy Sanders
Megan E. Whitson
under the direction of Dr. Maryanne Drake

Doctor of Philosophy Degrees Awarded
Mallorye D. Lovett
under the direction of Dr. Jonathan C. Allen
Prashant Mudgal
under the direction of Drs. Chris Daubert & E.A. Foegeding

Master of Nutrition Degrees Awarded
Yu Liang
under the direction of Dr. Jonathan Allen
Casey F. Reed
under the direction of Dr. Jonathan Allen

¹Cum Laude
²Magna Cum Laude
³CALS Honor Program
Dr. Leon Boyd Retires

In May, Dr. Leon Boyd was honored with a grand reception at the J.C. Raulston Arboretum. Having served with the Food, Bioprocessing and Nutrition Science department as well as on the CALS college staff for 37 years, many were present to honor and celebrate this foundational member of the department’s Nutrition and Food Science faculty. Dr. Boyd was active in research, teaching and student advising during his stay on campus. His research and teaching focused on lipids and antioxidants and their functionality in food systems including seafood, muscadine grapes and blueberries. He was also an active advisor for student groups on campus including MANNRS (Minorities in Agricultural, Natural Resources & Related Science) for much of his tenure. Besides being an active faculty member, Dr. Boyd was a friend to all. His warm smile and quick hello is already missed in the halls around Schaub. We wish him well in retirement and hope to see him as often as possible in future years. Thank you, Dr. Boyd.

Phi Tau Sigma

The annual Phi Tau Sigma lecture and member induction was held in the Spring. Dr. Dana Hansen made the welcome remarks and then emceed the awarding of new member certificates with Drs. Brian Farkas and Fred Breidt. Dr. Gail Vance Civille of Sensory Spectrum, Inc. delivered the eighth Donald D. Hamann Memorial Lecture. The title of her talk was “Food Texture Pleasure and Pain”. Room 105 was packed for the occasion. Light refreshments were served before the lecture.
Dr. Klaenhammer receives Metchnikoff Prize
(excerpted from July 2010 NCSU Bulletin article)

Dr. Todd Klaenhammer is one of three winners of the 2010 Elie Metchnikoff Prize, given by the International Dairy Foundation and its partners to celebrate scientific discoveries. The prize is named after Nobel prize winner Elie Metchnikoff, who first promoted the concept of creating beneficial health effects through ingestion of living bacteria. Metchnikoff Prizes were awarded in three categories: nutrition and health, biotechnology and microbiology. Klaenhammer won in the biotechnology category.

He was cited for discoveries focused on industrial application of molecular genetics to food grade lactic acid bacteria. Klaenhammer studies genetic approaches to improving lactic acid bacteria, the “good” bacteria used as starter cultures and probiotics in fermented food and dairy products, like yogurt. His recent research focused on the molecular mechanisms responsible for the survival and activity of probiotic bacteria in the gastrointestinal tract. He used that information to develop live bacterial delivery systems for oral vaccines.

Klaenhammer is a Distinguished University Professor and William Neal Reynolds Distinguished Professor of food, bioprocessing and nutrition sciences. He also directs the Southeast Dairy Foods Research Center, which develops and applies new technologies for processing milk and its components into products with improved qualities.

Metchnikoff Prize winners were announced at the IDF Symposia on Science and Technology of Fermented Milk and on Microstructure of Dairy Products in Tromsø, Norway, in June. The prize was created by the International Dairy Federation and partner organizations, Institut Pasteur and the International Scientific Association for Probiotics and Prebiotics, with support from industry partners.

Workshops

National Seafood HACCP Alliance
Three Train-the-Trainer workshops were held across the US this past summer in Battle Creek, Michigan, Miami, Florida and San Francisco, California with 75 regulatory, academics and industry participants as Association of Food and Drug Officials recognized trainers in basic seafood HACCP. Dr. David Green is serving at the Train-the-Trainer committee chair, participating in the curriculum development and trainer workshops.

Five Basic Seafood HACCP Workshops Held
Seventy regulatory and industry members completed the Seafood Laboratory’s Basic Seafood HACCP course in North Carolina this past year. This brings the total number of workshops offered by the Lab since 1997 to 41 with 883 individuals receiving the Association of Food and Drug Officials (AFDO) certificates of course completion. Participants traveled from as far away as Wisconsin, Texas and Arizona to attend either the three-day workshop or the one-day Segment Two course.
Seafood Lab Hosts Middle School Students

Over 50 middle school-age students and teachers from the 2010 Carteret County Public Schools Marine Science Academy visited CMAST in June. David Green and Greg Bolton provided programs about seafood quality and sensory science. Students learned about seafood quality and safety. Greg Bolton (pictured) showed different types of fish and cooked samples of mahi to taste.

Dr. Donn Ward Retires

Dr. Donn R. Ward officially retired in June 2010. He served within the department of Food, Bioprocessing and Nutrition Sciences from 1988 until 2010. He first served as Extension Leader and then became Associate Department Head from 1995 until 2005. He then served as Department Head from 2005 until his retirement in 2010.

Donn’s primary research focus was associated with food safety and quality of marine food products. He was also recognized as an early leader in HACCP education. He successfully lead the department through many milestones including the Schaub building renovation, the addition of the Bioprocessing Science and Nutrition Science undergraduate majors and the departmental name change in 2007. Though reserved at times, Donn was a willing spokesman and emcee for all departmental events. His warm personality and ability to read a crowd made for many memorable moments during his time as department head. He cared about the faculty and staff in a forthright, honest manner and was willing to stand behind his employees through good times and bad. We will sincerely miss you, Dr. Ward!
Ms. Sue Strong Retires

In June, Sue Strong, a familiar, smiling face that was a backbone of administrative support to the FBNS department, retired and left a hole in many hearts still here in Schaub. Her willingness to help with any type of problem and to track down the right answer for every question made Sue an invaluable member of the administrative staff. As her plaque read, “Sue managed the department’s administrative functions with unmatched professionalism, dedication and commitment. Her warm personality and willingness to help made her the perfect ‘first contact’ for everyone arriving at the department.” Sue was awarded the 2010 CALS Award for Excellence shortly before her retirement. A reception was held in her honor at Schaub Hall in June. She served North Carolina State University from 1995 until 2010. Thank you for everything, Sue!

IFT Annual Convention in Chicago, IL

Allen Foegeding presented with 2010 William V. Cruess Award

(excerpted from IFT.org article by Mindy Weinstein)

Allen Foegeding, William Neal Reynolds Distinguished Professor, North Carolina State University, has been selected as the winner of the 2010 William V. Cruess Award by the Institute of Food Technologists, a not-for-profit international society with members working in food science, technology and related professions.

The William V. Cruess award is given yearly to an IFT member who has achieved excellence in teaching food science and technology. The award will be presented at IFT’s Annual Meeting and Food Expo in Chicago, IL on July 17th 2010, and includes a $3,000 honorarium from IFT and a bronze medal from the Northern California Section of IFT.
Foegeding has served as a mentor for students at every step of their education process, leading courses which are designed to appeal to a wide variety of learning styles. Foegeding uses novel teaching methods to nurture his students' analytical abilities, training them to critically assess published materials and helping them to improve their evaluation skills. His multidisciplinary approach ensures that his students are well-rounded, critical thinkers. Foegeding has also served as a leader for his department's college bowl teams, which have won multiple national championships. His leadership extends beyond the classroom, as well; he has been instrumental in developing the current IFT Education Standards for Degrees in Food Science, and chaired the Committee on Higher Education during the implementation of these standards.

IFT recognizes the many accomplishments that individuals and organizations have made to advance the food science industry and to help ensure safe, affordable, and nutritious foods to the world. To honor these individuals and organizations, the IFT Awards Program was created. This program grants awards, fellowships, and prizes for outstanding accomplishments in all areas of food science and technology, administering 14 Achievement Awards, the Marcel Loncin Research Prize, and the IFT Fellows program.

David Green named IFT Fellow

Aquatic Food Products Division chair, Dr. David Green, was honored as a new IFT Fellow on July 17 in Chicago during the IFT Awards Celebration. He was recognized for outstanding contributions in engaging industry, government, and academia worldwide to advance seafood science and technology.

Dr. David Green was elected to the Executive Council of the Academy of Outstanding Faculty Engaged in Extension (AOFEE) to serve a three-year term beginning in Fall 2010. The AOFEE is active in the promotion and recognition of excellence in extension and outreach at NC State and elsewhere.

IFTSA Chapter of the Year

The NC State Food Science Club was named Chapter of the Year during the 2010 meeting in Chicago. The club was led by an excellent executive board including Ms. Amanda Stephens, who served as president of the club for the 2009 – 2010 school year. The Chapter of the Year award honors one university student organization annually for exceptional participation, strong leadership, community outreach and providing opportunities that utilize the talents of all their members. NC State has allows put on a strong showing in this competition, and we at Schaub are proud to honor a club that makes our students more aware professionals as well as improves the social and professional interactions within our own department. Congratulations!
More Student Awards at IFT
"Developing Solutions for Developing Countries"
Product Development Competition - Second Place

Dairy Foods Division
Poster Competition:
Esra Cakir - First Place
Mina Kim - Second Place
Kelsey Ryan - Third Place
Pattarin Leksrisompong - Fifth Place

Oral Competition:
Malory Lovette - Second Place
Prashant Mudgal - Third Place

Refrigerated and Frozen Foods Division
Poster Competition:
Aswini Kumar Singh Jasrotia - Second Place

Food Chemistry Division
Poster Competition:
Aaron Oakes - Third Place

15th Annual N.C. State IFT Breakfast

The 15th NC State IFT Breakfast was held in Chicago on July 18th 2010. There, Dr. Heather Hudson was honored as the 2010 Outstanding Young Alumnus citing that “the knowledge and discipline gained at NCSU has helped Heather ascend the corporate technology ladder in the nine years since the completion of her degree.” Dr. Ron Heddleson was also recognized as the 2010 Outstanding Alumnus Award winner. He joined forces with General Mills in 1997 and has never looked back as he has risen through the ranks at GMI where he now serves as a Project Manager within the Progresso® Soups division. Additionally, he was recognized for his collaboration with several other NC State Departmental alumni within General Mills to initiate an annual silent auction and fundraiser for the department, inaugurated in February. It is alumni like these that keep NC State Food Science reputation strong within the food industry.

Dr. Chris Daubert was the emcee for the morning’s festivities while Dr. Brian Farkas stepped in to present recognitions of the 2009 – 2010 Food Science Club Officers and other IFT student recognitions won during the calendar year. Door prizes were donated by the CALS Alumni Society, NCSU Food Science Club, NCSU Bookstores and the NCSU Alumni Association while all guests received a complimentary reusable grocery bag with a departmental logo. Sponsors of student attendees included CP Kelco, Mother Murphy’s Laboratories, Inc. and the IFT Dogwood Section. Thank you to all who participated in making this event a great success once again in 2010.
Sharon Ramsey Retires
At the end of August, a bright light in Schaub headed for retirement. Ms. Sharon Ramsey, who served the department for 31 years as a Research Associate and Rheology Lab manager was honored at a reception in downtown Raleigh in the Barton room at the Unitarian Universalist Fellowship at 3313 Wade Avenue. Well known by faculty and students alike, Sharon had a zest for life as well as Food Science that infiltrated all she did.

Students show strengths at ADSA
The 2010 Joint Annual Meeting of the American Dairy Science Association, Poultry Science Association, Asociación Mexicana de Producción Animal, Canadian Society of Animal Science, and American Society of Animal Science convened July 11 through July 15, 2010, at the Colorado Convention Center in Denver, Colorado. Over 3,900 attendees representing nearly every country in the world attended the Joint Annual Meeting. NC State students from the MaryAnne Drake lab competed and won in the following competitions:
- Rachael Campbell - First Place - DMI Graduate Student Paper Presentation
- Maria Listyani - Third Place - Leprino Foods Graduate Student Poster Presentation
Good work ladies!

Taste of RMC win “Blue Ribbon Barbecue”
(excerpted from July 2010 NCSU Bulletin)
For the die-hard North Carolina barbecue lover, there is no in-between. It’s either eastern vinegar-based or western tomato-based sauce.
But it is possible for east and west to meet and coexist, tastefully.
Three NC State students have shown that combining eastern and western barbecue sauces is not barbecue blasphemy—it’s a winning recipe.

A team of food science students won the Taste of RMC (Reciprocal Meat Conference) Product Development Competition last month at the American Meat Science Association Reciprocal Meat Conference at Texas Tech University in Lubbock, Texas. The conference is the big annual meeting for meat scientists from around the country. The team was made up of Daniela Bautista, a graduate student in food, bioprocessing and nutrition sciences, and Matthew Hudson and Edward Osika, both chemical engineering students who are minoring in food, bioprocessing and nutrition sciences, said Dr. Dana J. Hanson, associate professor and team adviser.
Taste of RMC with “Blue Ribbon Barbecue” (Cont)

Hanson said the Taste of RMC contest is a major part of student participation at the annual meeting, and while taste is certainly important, presentation is a big part of contest judging. The NC State entry, “The Q-tini,” served up pulled pork barbecue in a martini glass. The winning combination featured layers of baked beans and pork topped with creamy coleslaw. The finishing touch was a piece of pickled okra.

The result was a winner, a first for NC State in the seven years the competition has been held. In fact, but Hanson said the secret was the sauce. The students combined the vinegar taste of Eastern North Carolina barbecue sauce with a Western North Carolina-style tomato-based sauce to thicken the mixture.

Hanson added, the sauce was so good, the students have discussed bottling and selling it. Osika and Hudson represented Eastern North Carolina on the winning team. Osika is from Emerald Isle and Hudson from Fayetteville. Bautista apparently represented the west. She’s from Honduras.

Food science students Edward Osika (left), Matthew Hudson and Daniela Bautista created the Q-tini.

Fred Jimenez

Mr. Fred M. Jimenez was hired in July as Executive Assistant to Interim Department Head, Dr. Christopher Daubert, and departmental personnel representative. He comes to Schaub after several years in CALS administration at Patterson Hall working directly with student academics. Welcome Fred!
The Meat Industry Suppliers Alliance Foundation Announces Scholarship Recipients

McLean, VA - The Meat Industry Suppliers Alliance (MISA) is proud to announced the winners of the MISA Foundation Meat Science Scholarship and the MISA/Siemens Scholarship. Lane Stoll of the University of Saskatchewan, Maria Tenorio-Bernal of Michigan State University, and Daniela Bautista of North Carolina State University have each been awarded the $5,000 MISA Foundation Scholarship, and Clint Stevenson of North Carolina State University has been awarded the $10,000 MISA/Siemens Scholarship. These scholarships will be used towards completing the winners' respective degrees within the meat sciences discipline.

"We had a real strong group of students competing for the scholarship awards this year," said Craig Hess, Chairman of the MISA Foundation and President of Speco, Incorporated. "The interest from the student population continues to grow and this is a great sign for the future of the industry," he continued.

It is the goal of the MISA Foundation to annually fund scholarships through interest monies which are drawn from a principal fund of donations. Through donations from individuals, companies and organizations, the Foundation provides grants to students studying meat or food science fields. The ultimate purpose is to assist the meat and related food industries by identifying and developing students with the intellect and technical skills that can advance and enhance the total industry.

SOURCE: Meat Industry Suppliers Alliance

New frontiers in industry

Dr. Edith Ramos began working with Clorox in August 2010. She finished her doctoral work during the summer of 2010.

Karen Constanza, has been awarded an internship at Clorox for Summer 2011.

Lisa Rosenberg will take part in a Co-op experience at Campbell Soup in Fall 2011 (July – December).

Welcome New Graduate Students

Meghan O'Meara
My name is Meghan O'Meara. I am from Barrington, IL. I attended the University of Illinois and received a BS in Chemical Engineering. I am looking into methods to determine the surface tension between oil and steam at high temperatures. An interesting fact about me is that I use to live in Singapore and got to travel world because of it.

Alev Yüksel Aydar
I am from Turkey. I graduated from the department of Food Engineering in Selcuk University, Konya - Turkey. After graduation I worked in a food company for two years in different positions as a Quality Assurance Engineer and Production Engineer. After I took a nationwide exam for bachelor's degree students in Turkey in 2008, I was awarded a scholarship for my graduate education in the USA by the Turkish Ministry of National Education. After my graduate education, I will work in a University in Turkey as a faculty member in a Food Engineering Department. My interest area is cooking oil technology and I will work with my advisor Dr. Brian Farkas on surface and interfacial tension on cooking oils at high temperatures.
2010 – 2011 Scholarship Winners

The 2010 – 2011 departmental scholarships were awarded over the summer. Scholarship decisions were made by the departmental scholarship committee based on grades and activities during the 2009 – 2010 school year. (Members of the Scholarship committee include: Dr. Keith Harris, Dr. Brian Farkas, Dr. Sarah Ash, Dr. Christopher Daubert, Dr. John Allen and April Hix Morrison.) All Scholarship recipients will be honored at the annual departmental awards banquet in April 2011. Winners announced for 2010 – 2011 included:

Scholarship

Benjamin W. Kilgore Scholarship
Karlee Bass
Mollyrose Milewski
Nick Butterbaugh
Sarah Nahum
Rachel Geiger
Kaitlyn Panetta

Carolina-Virginia Dairy Products Assoc. Scholarship
Kendra Stallings
Sara Cohen

Cristie Abigail “Abbi” Fleming Dairy Science Scholarship
Aaron Massey

Frank and Rachel Kirby Thomas Food Science Scholarship
Amanda Kaufman

Eakes-Turner Food Science Scholarship
Megan Gillis
Amanda Kay
Megan Morse
Kyle Maddox
Ashleigh Stephens

H. Hawkins Bradley Scholarship
Lindsey Lee
Anita Shek

Hase H. and Lena M. Smith Scholarship
Lindsey Lee
Anita Shek

J. Frank and Margaret B. Neely Scholarship
Aaron Anders
Robert Price
Sara Cohen
Joshua Souther
Joylyn Daniel
Yiwen Thor
Hiba El-Kara
An Truong
Holly Peschken

James L. and Diana G. Oblinger Scholarship
Kelsy Lindsay

John and Kelli Rushing Food Science Freshman Scholarship
Erin Woodall

Mid-Atlantic Food Boosters, Inc. Scholarship
Molly Spencer

Mose and Helen Kiser Scholarship
Katrina Connor
Nick Fragedakis

Neil and Nancy Webb Memorial Food Science Endowment
Stephanie Renn

Southeastern Food Processor’s Assoc. Sch. – John Rushing Scholarship
Amanda Burgess

T.W. Garner Food Company Scholarship
Dylan Page

Victor and Maryetta Jones Scholarship
Nick Butterbaugh
Rachel Geiger

Congratulations to an active, hard working group of undergraduate students within our Food, Bioprocessing & Nutrition Sciences Department!
Food, Bioprocessing and Nutrition Sciences Golden Anniversary Celebration

2011 marks the 50th anniversary of the NC State Department of Food, Bioprocessing and Nutrition Sciences! To celebrate this milestone, we will have a weekend of festivities kicking off on Thursday, September 29 through Sunday, October 2, 2011. Mark your calendars and plan to join us for a golf tournament at the new Lonnie Poole golf course on Centennial Campus, 5K fun run, family-friendly pig pickin’ and celebratory Wine and Cheese gala, as well as other events throughout the weekend.

Stay updated on announcements by visiting [http://www.ncsu.edu/foodscience/](http://www.ncsu.edu/foodscience/). If you are interested in helping contact alumni, please contact Carl Hollifield (wchollif@ncsu.edu) or Tristan Laundon (tristan_laundon@ncsu.edu).

Creamery Update

“Bovine Bonanza”

N.C. State University doesn’t plan on selling cheese alongside its ice cream offerings at the North Carolina State Fair, but that doesn’t mean it won’t soon be available for sale on campus. NCSU’s Department of Food, Bioprocessing and Nutritional Sciences is working to expand its dairy processing and production operations even as other universities nationally sell off large parts of their dairy herds.

Gary Cartwright, coordinator of the university’s dairy processing plant, says he would like to add cheeses, yogurt, cottage cheese and sour cream to the list of ice creams and milks the college produces. The goal is to give students and researchers more opportunities to learn about dairy products.

The department plans to break ground this fall on a $1 million milking parlor to better collect milk from its 170 dairy cows and has raised a little more than $1 million toward a planned two-story, $3.5 million training center and creamery.

The new annex would provide offices and classroom space for providing courses to dairy farmers, producers and locavores about new research and techniques in their fields. There’s also the chance to show off new products such as kiwi-flavored ice cream or coffee-flavored, probiotic milk.

The expansions come a year after the Food, Bioprocessing and Nutritional Sciences and Animal Sciences departments realigned their programs, putting operational control of the university’s dairy farm under dairy processing. The idea was to vertically integrate the operations.

As a result of the move, the bulk of the cost of operating the dairy farm, located on Lake Wheeler Road, was transferred from the university to the creamery operation. The funds generated from selling ice cream and milk are used to support the processing facility as well as to manage and feed the cows. The program generated almost $1.7 million during the fiscal year ended June 30, according to figures provided by the university.

Costs came in just under that, at $1.64 million, with the two largest expenses being supplies and salaries. Supplies, which cost $825,000, largely cover the cost of producing milk at the dairy farm.
Creamery Update (cont)

Cartwright says the operation is proving to be self-supporting, and all but a handful employees are paid from revenue generated through the sale of dairy products.

While a state law called the Umstead Act prevents universities from competing with the private sector, NCSU, with the support of the state’s dairy industry, received legislative exemption from the act for certain purposes.

As a result, milk produced by the university’s dairy cows is processed in house and converted to ice cream or milk. The exemptions allow ice cream to be sold at the State Fair and at creameries on campus while the milk is sold to NCSU dining services and to the state for use in prisons, hospitals and other areas.

NCSU is benefiting from having invested years ago in developing its dairy processing facilities. Elsewhere in the nation, lagging milk prices for farmers, increasing cattle feed costs and declining state budgets are devastating farms at universities that have them. Several universities are in the process of selling large parts of their dairy herds.

Greg Cuomo, associate dean for extension and outreach at the University of Minnesota, says the university is selling about 120 lactating cows and about 100 young cows, leaving about 275 lactating cows and about 200 young stock for research and teaching.

The sale should net a few hundred thousand dollars, but more importantly, says Cuomo, it will save the university a few hundred thousand dollars each year. “It’s just a small part of what we think is coming in terms of budget reductions for next year,” he says.

The University of Vermont is selling about 255 animals. Tom Vogelmann, dean of the College of Agriculture and Life Sciences, says state support for operating the cattle farm has been dropping. When milk prices were strong, they were able to support the operation, but not any longer. “We were in a situation where we were losing substantial amounts of money,” he says, adding that the sale will stop the red ink and will result in about $200,000 available annually to support research.

Vermont used to have a creamery, but that closed about 15 years ago, much to the chagrin of students, Vogelmann says. “It’s great if you have modern facilities and take advantage of economies of scale,” he says of such operations. “We would substantially need to upgrade all of our facilities to do what N.C. State is doing.

Welcome to Baby Butler

Kristin (PhD 2009) and Chris Butler welcomed a new baby girl, Marissa, into the family on September 21st. Congratulations to the proud parents!
**Microwave Team Highlighted in Governor's Announcement**

200 new jobs headed to Halifax County

By George Crocker

(Excerpted from News 9 online article, September 16th)

200 jobs are on the way to Halifax County. Governor Bev Perdue made the announcement today. She says Empire Foods, Inc., an advanced technology food processing company, has plans to invest $2.5 million into the county over the next five years. A $400,000 grant from the One North Carolina Fund helped to make the project possible.

“These 200 new jobs are the result of North Carolina’s exceptional ability to bring together innovation, economic development, our renowned university system and local and state partnerships,” said Gov. Bev Perdue. “This creative collaboration will also benefit local farmers, successfully combining new production technology with our traditional agricultural heritage.”

Empire Foods Inc. produces shelf-stable food products that don’t require refrigeration, but maintain flavor, color and nutrients. It uses technology licensed from N.C. State. They’ll lease a 35,000 square food production facility in the new Halifax Corporate Park.

The average annual age for workers will be $28,418, not including benefits. Halifax County's average annual wage is $25,532.

“We are pleased that we are able to keep this technology in North Carolina where it was created, in cooperation with North Carolina State University. Locating this project in North Carolina, we can look forward to continued collaboration with the university’s Food Science Department,” said Greg Hatem, chairman of Empire Foods. J. Michael Drozd, president and CEO added, “The economic development team did a wonderful job making it possible for us to be in North Carolina, and most importantly, in Halifax County. The wide variety of products that can be grown as well as the very capable workforce made Halifax County the top location.”
**Dr. Mary Ann Lila awarded Murdock professorship**
(Excerpted from CALS Communication by Dave Caldwell)

Dr. Mary Ann Lila, Director of North Carolina State University’s Plants for Human Health Institute on the North Carolina Research Campus in Kannapolis, has been named the first David H. Murdock Distinguished Professor.

Three Murdock professorships were created with a $2 million gift to N.C. State from David Murdock, owner of Dole Foods and other businesses. Murdock’s gift was matched with $1 million from the North Carolina Distinguished Professors Endowment Trust Fund, and the $3 million total used to create endowments that fund the three professorships.

The N.C. Research Campus is Murdock’s vision. He is collaborating with universities across North Carolina to transform Kannapolis, a former textile mill town, into a high-tech research center that will focus on developing a better understanding of human nutrition and foods with enhanced nutritional qualities.

The Plants for Human Health Institute, which is part of N.C. State’s College of Agriculture and Life Sciences, is playing a key role in making Murdock's vision a reality. The efforts of institute scientists are focused on shifting the way the American public views and uses plant food crops as sources not just for nutrients but also for phytochemicals that protect and enhance human health.

Lila, who was named to direct the institute in 2008, is an internationally known scientist. Her research focuses on three areas: studying health-enhancing compounds in blueberries and other berries, isolating phytochemicals that counteract malaria, and working with scientists and students from around the world to explore natural products for biomedical use.

Working with the Global Institute for BioExploration, or GIBEX, a research and development network she helped start while she was on the University of Illinois at Urbana-Champaign faculty, Lila works with scientists, students and traditional healers in developing nations and with Native Americans to identify plants that hold promise for human health. Lila’s work has taken her to Central and South Asia, New Zealand and Australia, Alaska and the Dakotas, Central and South America, and Africa. A professor in N.C. State’s Department of Food, Bioprocessing and Nutrition Sciences, Lila is one of five N.C. State faculty members now working in the institute, which is expected to grow to 15 faculty members.
New Chancellor's Choice flavor – Brickyard event

Chancellor Works on Sundae

(excerpted from NCSU Bulletin October 2010)

Fresh from his formal installation as the 14th chancellor of NC State, Randy Woodson rolled up his sleeves and got down to business Wednesday, unveiling a new flavor of ice cream, called Wolf Tracks, before a very enthusiastic crowd of students, faculty and staff on the Brickyard. Woodson personally created the new flavor, made with vanilla ice cream, chocolate ice cream, fudge and peanut butter.

Woodson helped carve up a gigantic sundae made with 75 gallons of the new ice cream flavor, then helped hand out more than 2,500 free samples. The giveaway, dubbed the Chancellor's Ice Cream Dream, was sponsored by University Dining, student government and the chancellor's installation committee.

The sundae was served using 100 percent biodegradable bowls, spoons and napkins. Chopped peanuts were donated by Mackey's Ferry Peanuts in Jamesville, N.C., a vendor at the Campus Farmers Market, and whipped topping by Alamance Foods of Burlington.

Wolf Tracks joins the university’s Howling Cow brand of ice cream.

Seafood Lab Takes Part in CMAST 10-Year Anniversary Program

October 15 was the date to celebrate the work of the NCSU Center for Marine Sciences and Technology programs for the past ten years. Located at CMAST, the Seafood Laboratory faculty and staff provided presentations to visitors about the work being conducted – specifically histamine formation in scombroid fish and a tour of the Seafood Pilot Plant. It was estimated over 100 people attended. Jill Miller of the Lab (and part-time CMAST employee) coordinated much of the event. The speaking program included remarks by Chancellor Randy Woodson, his first visit to the facility, and Dean Johnny Wynne, and was followed by a reception and open house for visitors to learn more about the marine center.
Spookghetti 2010

The departmental yearly Spookghetti lunch was held on Friday, October 29\textsuperscript{th} with many glowing spirits and spooks. Again, the Costume Contest was a treat for all to see with memorable entries such as the band of star-studded superheroes from the USDA Pickle Lab: Dorothy, Toto, Glenda and The Wicked Witch from “The Wizard of Oz”; a Desperate House Wife of Wake County; and even a mad professor as portrayed by Dr. Chris Daubert. The Spookghetti, bread, and salad were tasty and plentiful while the Pumpkin Carving Contest rose to new heights with the addition of a disco ball decorated pumpkin that added shimmer to the noontime festivities.

The costume contest was emceed by Dr. Todd Klaenhammer who did an excellent job of bringing out the character in all in costume, and his fairness in the People's Choice costume award must be commended as he meticulously tallied the crowd's response with his highly-trained applause ear more than once between the Pickle Lab Heroes and the Wizard of Oz girls. In the end, the Wicked Witch and crew won out in the fun competition. The official judges for the day were . Their professional choice for best costume was .

It was a fun and not-so-scary time for the department to eat, laugh and have a good time. Thank you again to the Social and Recreation Committee who takes this event up a notch every year.
November 2010

Welcome to the Hansen twins
On Friday, November 26th, Dana and Carmina Hanson welcomed twin girls into the world: Margo Lane (5 lbs 8oz, 19") & Harper Anna (6 lbs 2oz, 19.5"). Mommy and babies are all doing well. Congratulations to the whole family!

Welcome back, Chris Pernell
Chris Pernell, a former undergraduate in the Food Science program and Master of Science recipient in Food Science under the direction of Dr. Allen Foegeding, returns to the department after a stint in the Food Industry that included time with Kraft Foods. He will be the new Rheology Lab Manager under the direction of Dr. Chris Daubert. Welcome home to Schaub, Chris

December 2010

Holiday Luncheon
The FBNS Holiday Luncheon was celebrated on Tuesday December 7th at Schaub Hall. Six long tables of food, two dessert tables and even Howling Cow egg nog were stocked for the Schaub crowd. Young and old alike attended with children of several faculty and staff present as well as a strong showing out of the Emeriti faculty and retired staff.

After all guests had piled their plates high, they were directed to class room 105 where Santa Claus himself visited with all the naughty and nice by leading them in songs, handing out jingle bells, reading “The Night Before Christmas” with the Assistance of Interim Department Head Dr. Chris Daubert and then took pictures with all the good boys and girls, young and old. A unique and spirited display of some of the department members creative talents were also showcased in the Gingerbread House decoration contest. A total of seven entries vied for top honors in the silent auction designed to raise money for the Faculty and Staff Flower Fund.

The day was completed with two hours of fun and fellowship to go with the excellent food and plethora of desert choices. The Social and Recreation Committee once again delivered a wonderful event to a very grateful following at Schaub Hall. Thank you everyone for your participation to such an annually anticipated event!
Fall 2010 Graduation

The Fall 2010 Food, Bioprocessing and Nutrition Sciences Graduation honors were conducted at St. Mary’s Pittman Auditorium on a brisk Saturday, December 18th, 2010 at 1:30 pm. Ms. Sheri L. Schwab, Assistant Dean for Personnel in the College of Agriculture and Life Sciences, made the welcome remarks and introductions. A reception and refreshments including Howling Cow ice cream immediately followed the festivities.

Bachelors of Science Degrees Awarded

Bioprocessing Science
Coordinator: Dr. John Sheppard
Amanda L. Kay
Carrie M. Purvis

Food Science
Coordinator: Dr. Brian E. Farkas
Kimberly G. Barnum

Nutrition Science
Coordinator: Dr. Sarah L. Ash
Alaina S. Alevizatos\(^1,3\)
Kristin L. Bennett
Beverly R. Cox\(^1\)
Jennifer V. Evans\(^2\)
Elyse S. Hayes
Lisa J. Kretchman
Blair S. Lithgow
Kelli L. Magill
Hayley M. Napier
Jordan A. Peoples
Maria N. Rock
Zachary A. Sipes
Ruth A. Stotesbury
Krista N. Underwood
Elizabeth A. Waldron
Katherine Morgan Wayt
Matthew R. Wheeler

Master of Science Degrees Awarded

Food Science
Ayuub A. Ayoola
under the direction of Dr. Jonathan Allen & Dr. Peter Ferket
Leann Barden
under the direction of Dr. Allen Foegeding
Rachel E. Campbell
under the direction of Dr. MaryAnne Drake
Melissa L. Ivey
under the direction of Dr. Trevor Phister

Nutrition Science
Ayuub A. Ayoola
under the direction of Dr. Jonathan Allen & Dr. Peter Ferket

Doctor of Philosophy Degrees Awarded

Food Science
Edith Ramos Da Conceicao Neta
under the direction of Dr. Timothy Sanders & Dr. MaryAnne Drake
Aswini Kumar Singh Jasrotia
under the direction of Dr. K.P. Sandeep
Sheea L. White
under the direction of Dr. Jon Allen & Dr. Sophia Kathariou

\(^1\)Cum Laude
\(^2\)Magna Cum Laude
\(^3\)CALS Honor Program
Congratulations to our FBNS Fall 2010 Graduates!!!

FBNS Departmental Endowment Update

An endowment is a long-term investment in the College that provides benefits to students, faculty or programs year after year, generation after generation. For endowed funds, the donor stipulates that the principal (endowment corpus) must be invested and that only a portion of the income may be expended to carry out the donor’s purpose.

At Schaub, we are fortunate to have several endowments that have presented to the department over the course of the last 50 years. These endowments now fund scholarships that benefit all of our majors, especially Food Science. Please see the list below to appreciate the generosity and dedication of our alumni and industry counterparts. Also, consider how this might be a means through which you may one day choose to give back to your home department and NC State.

ENDOWMENTS BENEFITTING FBNS

| Food, Biological & Nutrition Sciences | B.M. Newell Food Science Library Endowment |
| Food, Biological & Nutrition Sciences | Benjamin P. Forbes Company Scholarship Endowment |
| Food, Biological & Nutrition Sciences | Benjamin Wesley Kilgore Food Science Scholarship Endowment |
| Food, Biological & Nutrition Sciences | Cristie Abigail "Abbi" Fleming Dairy Science Scholarship |
| Food, Biological & Nutrition Sciences | CVDPA-Robert N. Wood Scholarship Endowment |
| Food, Biological & Nutrition Sciences | Daniel Franklin Kornegay Family Endowment for Excellence in Sweet Potato Research & Extension |
| Food, Biological & Nutrition Sciences | Dr. Frank & Rachel Kirby Thomas Food Science & Family & Consumer Sciences Scholarship |
| Food, Biological & Nutrition Sciences | Dr. Isadore & Cynthia Peppe Food, Bioprocessing & Nutrition Sciences Scholarship |
| Food, Biological & Nutrition Sciences | Dr. Peggy Foegeding Memorial Food Science Scholarship Endowment |
| Food, Biological & Nutrition Sciences | Fred R. Tarver, Jr. Poultry Products Scholarship |
| Food, Biological & Nutrition Sciences | Harvey L. & Kathleen R. Barnes Scholarship Endowment |
| Food, Biological & Nutrition Sciences | Henry F. Chancy & Laurie Barnes Chancy Endowment for Excellence in Sweet Potato Research & Extension |
| Food, Biological & Nutrition Sciences | Howard L. Dalton Memorial Scholarship Endowment |
| Food, Biological & Nutrition Sciences | Ivan & Lillian T. Jones Food Science Scholarship |
| Food, Biological & Nutrition Sciences | J. Frank & Margaret B. Neely Endowed Scholarship in Food Science |
| Food, Biological & Nutrition Sciences | John Rushing Southeastern Food Processor's Association Endowed Scholarship |
| Food, Biological & Nutrition Sciences | John W. Long/NC Meat Processors Association Scholarship Endowment |
| Food, Biological & Nutrition Sciences | Leonard & Frances Crouch Scholaristic Achievement Award |
| Food, Biological & Nutrition Sciences | Mose & Helen Kiser Endowed Scholarship |
| Food, Biological & Nutrition Sciences | Neil & Nancy Webb Memorial Food Science Scholarship Endowment |
| Food, Biological & Nutrition Sciences | Robert N. Wood Scholarship Endowment |
| Food, Biological & Nutrition Sciences | Russell S. Flowers Teaching & Training Endowment for Food Safety & Quality |
| Food, Biological & Nutrition Sciences | Stephanie Christine &erson Memorial Endowed Scholarship |
| Food, Biological & Nutrition Sciences | Tarheel Suppilmen's Fund for Excellence in Food, Bioprocessing & Nutrition Sciences |
| Food, Biological & Nutrition Sciences | Texas Pete Food Science Scholarship Endowment |
| Food, Biological & Nutrition Sciences | Thomas N. Blumer Endowment |
| Food, Biological & Nutrition Sciences | Victor A. & Maryetta Jones Scholarship |
| Food, Biological & Nutrition Sciences | W.L. Clevenger Food Science Library Endowment |
| Food, Bioprocessing & Nutrition Sciences (Viticulture/Enology) | Ray E. Hollowell, Sr. Endowed Chair |