External Review

Interdisciplinary Graduate Program of Food Science & Technology

Food Science & Technology Graduate Program Self Study

April 2010
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1. INTRODUCTION

1.1 Welcome

The faculty, staff and students of the Interdisciplinary Graduate Faculty of Food Science and Technology (IFS) are pleased to welcome you to Texas A&M University and trust that you will experience the culture that makes Aggieland unique. Texas A&M University is steeped in tradition, has a rich heritage of service and is the designated Land Grant University of Texas. As of Fall 2009, total student enrollment at Texas A&M University (College Station) was 48,702, an increase of 1.4% over the Fall of 2008. During this time, Master’s candidates university wide increased by 2.1% (5,919) and enrollment at the Doctoral level increased by 4.7% to 3,464. Enrollment in the College of Agriculture and Life Sciences totaled 5,159 undergraduates, 794 M.S. candidates and 517 Ph.D. degree students that represent an increase in graduate enrollment of 0.3 and 5.9%, respectively.

We are pleased to have this opportunity for a panel of Food Science experts to evaluate our M.S. and Ph.D. graduate program and to provide insight as to how the program can be made even stronger and enhance our academic standing and reputation. This self-study reflects a comprehensive review by the IFS, the development of a Strategic Plan, an assessment of the program’s strengths, weaknesses, opportunities and threats, an examination of the graduate curriculum, incorporation of assessment measures to appraise learning outcomes and an evaluation of the administrative components of the program. We look forward to receiving feed-back and recommendations from the review panel as we strive for excellence in the graduate program of Food Science and Technology. We realize this is a time consuming task and wish to thank you in advance for the service that you provide. Should you have questions or need additional information, please do not hesitate to contact us.

1.2 Charge to the Review Committee
February 5, 2010

Charge to the Peer Review Team
Food Science and Technology Interdisciplinary Program Academic Program Review

This letter provides you with background on the Food Science and Technology Interdisciplinary Program at Texas A&M University, and explains the expectations for our upcoming external review. The first degree in Food Science and Technology was offered in 1948. Below is a summary of the program's two degrees, and the number of degrees awarded over the past four academic years:

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The M.S. awards may include students obtaining both an M.S. and R.D. distinction through the use of a combined program and internship whereby students obtain licensure from the American Dietetic Association as part of their training.

This review activity is part of a periodic assessment of all Texas A&M University academic programs, and offers an opportunity to assess the standards of the programs and to learn from review team members' experiences with similar programs.

I request that the review team examine the graduate and research programs of the Food Science and Technology Interdisciplinary Program using the materials that will be provided, information you gain through personal interactions while visiting Texas A&M, and any additional information that you might request. While evaluating the program, please consider the allocation of resources within the program (both human and fiscal) and the absolute level of support the program receives from the University. Please comment as appropriate on current and potential leveraging of these resources, as well as the current and potential interaction with other departments, programs and groups, both on campus and off.

Also, please address the issue of learning-based outcomes:

- Does the program have ongoing and integrated planning and evaluation processes that assess its degrees and services, that result in continuing improvement, and that demonstrate that the program is effectively accomplishing its mission?
- Has the program identified expected outcomes for its educational programs?
- Does the program have evidence of improvement based upon analysis of results?

In addition, I ask that you address the impact of the Faculty Reinvestment Program, started by Texas A&M University in 2003. The reinvestment program has resulted in the hiring of almost 500 new faculty members. The goal is to improve the quality of education for Texas A&M students by having more faculty available for mentoring and advising, whether more courses and sections are available, or by simply being more responsive to student needs. Through this review we plan to track and measure real increases and improvements in the quality of the graduate experience across all dimensions. Please assess the success of the program in moving their teaching and research agendas forward with these hires. Thus far, the
Intercollegiate Faculty of Food Science and Technology (IFS) has benefitted by the reinvestment program through the addition of one new faculty member on campus who is actively involved in the IFS.

I look forward to meeting with you and the entire committee in April. If you have any questions or require additional information, please contact me.
### 1.3 Itinerary and Contact Persons

**Texas A&M University**  
**Intercollegiate Faculty of Food Science & Technology**  
**Academic Program Review Itinerary**  
**April 25-28, 2010**

*Hotel Reservations: The Reveille Inn, 4400 Old College Road, Bryan, TX 77801, (979) 846-0858*

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<th>Date</th>
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<tr>
<td>Sunday, Apr. 25</td>
<td>Travel and Welcome</td>
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<td>2:00-5:00 PM Review team arrives in College Station.</td>
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<td><strong>Pamela White</strong> DFW-CLL AA 3417 Arrives CLL 03:40 PM</td>
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<td><strong>Suzanne Nielsen</strong> IAH-CLL CA 9499 Arrives CLL 01:47 PM</td>
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<td><strong>Ronald Schmidt</strong> DFW-CLL AA 3417 Arrives CLL 03:40 PM</td>
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<td></td>
<td>Dinner at Café Eccell with EC members, Alejandro Castillo, Elena Castell-Perez, Luis Cisneros-Zevallos, Jimmy Keeton, Pete Murano, Jeffrey Savell</td>
<td>Café Eccell</td>
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<tr>
<td>Monday, Apr. 26</td>
<td>Program Review</td>
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<td>7:30-8:30 AM Entry interview with Karan Watson (Interim Exec. Vice President for Academics and Provost), Martyn Gunn (Vice Provost), Bob Webb (Interim Dean of Graduate Studies), and Pamela Matthews (Associate Provost for Undergraduate Studies). Breakfast served. Administrators issue charge to reviewers and provide institutional perspective. Audra Tackitt will transport team members to Kleberg Center.</td>
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<td>Meet with Participating Deans: Dr. Evelyn Tiffany-Castiglioni (Associate Dean, College of Vet. Medicine &amp; Biomedical Sciences), Mark Hussey (Vice Chancellor and Dean, College of Agriculture and Life Sciences, Alan Sams (Executive Associate Dean College of Agriculture and Life Sciences), David Reed (Associate Dean, College of Agriculture and Life Sciences) and Ben Crouch (College of Liberal Arts)</td>
<td>113 J K Williams</td>
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<td>Meet with Jimmy Keeton (IFS Chair) Jimmy Keeton will transport team members to Kleberg</td>
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<td>Meet with Audra Tackitt (Graduate Program Coordinator)</td>
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<td>Lunch with IFS graduate students. Catered by Blue Baker (pizza and salad)</td>
<td>126 Kleberg</td>
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<td>Tour of facilities, Sensory Labs Kleberg, (Rhonda Miller), Rosenthal (Jeffrey Savell), Soil &amp; Crop Sciences, Cereal Quality (Lloyd Rooney and Joseph Awika)</td>
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<td>Continuing Tour of facilities Cater Matil,(Luis Cisneros-Zevallos)</td>
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Food Science and Technology Graduate Program (PhD)
Irradiation E Beam, (Suresh Pillai)

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<td>5:00-6:30 PM</td>
<td>Faculty reception in Kleberg Buppy’s Catering. Jimmy Keeton will transport team to the Reveille Inn.</td>
<td>Kleberg Atrium</td>
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<td>7:00 PM</td>
<td>Dinner and work session for team at Reveille Inn. Take out from C&amp;J Barbeque. Audra will pick and deliver.</td>
<td>Reveille Inn</td>
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**Tuesday, Apr 27**

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<tr>
<td>7:30-8:30 AM</td>
<td>Breakfast at Reveille Inn. Jimmy Keeton transports team to campus.</td>
<td>Reveille Inn</td>
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<td>9:00-10:00 AM</td>
<td>Meet with Executive Committee members: Alejandro Castillo, Elena Castell-Perez, Luis Cisneros-Zevallos, Jimmy Keeton, Pete Murano, Jeffrey Savell</td>
<td>126 Kleberg</td>
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<td>10:15-11:15 AM</td>
<td>Meet with Curriculum Committee members: Peter Murano, Alejandro Castillo, Margaret Hardin</td>
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<td>11:45 AM-1:15 PM</td>
<td>Lunch with other IDP Chairs: Robert Burghardt (Toxicology), Eluned Jones (Agribusiness), Steve Smith (Nutrition), Craig Coates (Genetics), Suresh Pillai (Biotechnology) and Jean Gould (Molecular and Environmental Plant Sciences). Jimmy Keeton will transport to and from the luncheon.</td>
<td>University Club</td>
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<td>1:30-2:45 PM</td>
<td>Review Team Discuss</td>
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<td>3:00-3:45 PM</td>
<td>Tenure Track Faculty meets with Review Team</td>
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<td>4:00-4:45 PM</td>
<td>Tenured Faculty meets with Review Team Jimmy Keeton will escort team members to Reveille Inn.</td>
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<td>5:30-6:30 PM</td>
<td>Dinner at Reveille Inn. Take out from Jason’s Deli.</td>
<td>Reveille Inn</td>
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<td>6:30-9:00 PM</td>
<td>Reviewers’ work session, preparation of draft report for exit interview, faculty debriefing</td>
<td>Reveille Inn</td>
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<td>126 Kleberg</td>
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Food Science and Technology Graduate Program (MS, PhD)

Keeton, Pete Murano, Jeffrey Savell

10:30-11:00 AM  Reviewers make changes to draft report as necessary.  126 Kleberg

11:00 AM-12:00 PM  Reviewers brief faculty, staff, and students on final report.  126 Kleberg

12:00-1:00 PM  Lunch with Jimmy Keeton and Audra Tackitt. Catered by Blue Baker (sandwiches). Jimmy Keeton will transport remaining team members to Easterwood Airport.  126 Kleberg

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<td>Suzanne Nielsen</td>
<td>CLL-IAH</td>
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<td>Ronald Schmidt</td>
<td>CLL-DFW</td>
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1.4 Review Team
TEXAS A&M UNIVERSITY SYSTEM

The Texas A&M University System (TAMUS) is one of the larger systems of higher education in the U.S. The System is comprised of 11 universities 7 state agencies, and a health science center. TAMUS educates more than 115,000 students and serves about 15 million Texans each year. With nearly 27,000 faculty and staff, TAMUS has a physical presence in 250 of the state’s 254 counties and a programmatic presence in every Texas County. TAMUS brings in more than $675 million annually in externally funded research helping to drive the state’s economy.

The Texas A&M University System includes:

Texas A&M University – College Station (Flagship University)
- Texas A&M University at Galveston
- Texas A&M University at Qatar (in the Middle East)
- Prairie View A&M University
- Texas A&M University at Commerce
- Tarleton State University at Stephenville
- West Texas A&M University at Canyon
- Texas A&M University at Kingsville
- Texas A&M University at Corpus Christi
- Texas A&M International University at Laredo
- Texas A&M University at Texarkana
- Texas A&M University Central Texas at Killeen
- Texas A&M University at San Antonio
- Texas A&M Health Science Center, College Station

The Texas A&M University System Agencies include:
- Texas AgriLife Research
- Texas AgriLife Extension Service
- Texas Engineering Experiment Station
- Texas Engineering Extension Service
- Texas Forest Service
- Texas Veterinary Medical Diagnostic Laboratory
- Texas Transportation Institute

TEXAS A&M UNIVERSITY

Texas A&M University is a public institution dedicated to the development and dissemination of knowledge in diverse academic and professional fields. The University is committed to assist students in their search for knowledge to help them understand themselves, their cultural and physical environment, and to develop in them the wisdom and skills needed to assume responsibility in a democratic society. The University assumes as its historic trust the maintenance and enhancement of an intellectual environment that encourages the development and expansion of the human mind and spirit. While continuing to fulfill its mission as a Land-Grant/Sea-Grant/Space-Grant institution, the University is evolving and expanding its role to meet the changing needs of state, national, and international communities.
Established in 1876 as the first public college in the state, Texas A&M University today has become a world leader in teaching, research, and public service. Located in College Station in the heart of Texas, it is centrally situated among three of the country’s 10 largest cities -- Dallas, Houston, and San Antonio. Texas A&M ranks as the nation’s sixth largest university in enrollment, with more than 48,000 students on the main campus. It consistently ranks among the country’s top 20 universities in enrollment of National Merit Scholars, with more than 600 of these high-achieving students currently on campus.

There are 10 academic colleges at Texas A&M University. These are:

- College of Agriculture & Life Sciences
- College of Science
- Dwight Look College of Engineering,
- College of Veterinary Medicine & Biomedical Sciences,
- College of Architecture,
- Bush School of Government and Public Service
- Mays Business School
- College of Education and Human Development
- College of Geosciences
- College of Liberal Arts
Research:
With nearly $570 million invested in research, Texas A&M ranks in the top tier of universities nationwide in research expenditures. Texas A&M conducts research valued at more than $582 million annually, placing it among the top 20 universities nationally and ranking only behind MIT and the University of California at Berkeley for universities without medical schools.
Aggie Traditions

Aggie Ring
One of the greatest moments in the life of every Aggie is the day that he or she receives an Aggie Ring. This tradition began with the Class of 1889. The original rings were very different from the one worn today because, at that time, several companies made different versions of the Aggie Ring. E.C. Jonas, Class of 1894, designed a ring that is similar to the ring worn today. There have been only slight changes to this design, including the name of the institution in 1964, from the Agricultural and Mechanical College of Texas to Texas A&M University. The Aggie Ring is rich in symbolism and tradition and is perhaps the most recognizable and enduring symbol of the Aggie Network. To learn more about the symbolism of the Aggie Ring go to www.AggieNetwork.com/ring. The highly cherished Aggie Ring can only be obtained through The Association of Former Students which has the distinct privilege of protecting the spirit and integrity of the Ring. Students must meet eligibility requirements including completion of at least 95 hours of coursework before they can order their Aggie Ring. Traditionally, students wear their ring with the class year facing them to signify that their time at A&M is not yet complete. At the annual Ring Dance, the student’s ring is turned around to face the world proudly, just as the Aggie graduate will be ready to face the world.
Bonfire

What began in 1907 as the casual custom of gathering junk and scrap wood for a bonfire, symbolizing the undying love all Aggies hold in their hearts for Texas A&M, eventually evolved into an exciting and eagerly anticipated tradition at Texas A&M. For nearly a century, Bonfire was lit just prior to the annual football game with the University of Texas (referred to as “t.u.” by Aggies), representing the burning desire Aggies have to “beat the hell out of t.u.!” Aggie Bonfire has been a testament to Aggie spirit and what Aggie leadership, teamwork and motivation can accomplish. Since the tragic fall of the stack on November 18, 1999 the Aggie Bonfire is now remembered in a memorial on campus dedicated to those who were lost and injured that day and throughout Bonfire’s history.
Silver Taps
By far, one of Texas A&M’s most honored traditions is Silver Taps. Silver Taps is held for a student who passes away while enrolled at A&M. This final tribute is held the first Tuesday of the month when a student has passed away the previous month. The first Silver Taps was held in 1898 and honored Lawrence Sullivan Ross, the former governor of Texas and president of A&M College. Silver Taps is currently held in the Academic Plaza. On the day of Silver Taps, a small card with the deceased student’s name, class, major, and date of birth is placed as a notice at the base of the academic flagpole. Around 10:15 that night, the lights are extinguished and hymns chime from Albritton Tower. Students silently gather at the statue of Lawrence Sullivan Ross. At 10:30pm, the Ross Volunteer Firing Squad marches into the plaza and fire a twenty-one gun salute. Buglers then play a special rendition of Silver Taps by Colonel Richard Dunn. Taps is played three times from the dome of the Academic Building: once to the north, south, and west. It is not played to the east because the sun will never rise on that Aggie again. After the buglers play, the students leave from Academic Plaza in complete silence.

Muster
Muster began in June of 1883 as members of the Ex-Cadets Association came together to “live over again our college days, the victories and defeats won and lost upon drill ground and classroom” and to “let every alumni answer a roll call.” In 1922, April 21st became a formalized day of events for all A&M clubs to celebrate San Jacinto Day in the same fashion. Since then, events that occurred on April 21st have grown in size and number.
Muster gained national recognition in 1942 when newspapers reported that a Muster ceremony was held by 24 Aggies on the island of Corregidor in the Philippines just days before the land fell to the Japanese. Throughout World War II, there were reports of Aggies coming together from across the globe. Two men were said to have held Muster in a submarine. Accounts such as these inspired Aggies to establish annual Musters around the world and to inaugurate the first campus Muster ceremony in 1944. Today Aggie Muster is celebrated in more than 400 places worldwide. The ceremony brings together more Aggies and friends of Aggies on one occasion than any other at any other university in the world.

Students coordinate the Campus Muster that is held for students, faculty and Former Students of the Brazos Valley. Each year Muster is dedicated to the fifty-year reunion class. The Campus Muster involves a day of activities for students of past and present. Former Students enjoy a special program including personalized tours of the ever-changing but historic campus. At noon, all Aggies converge at the Academic Plaza to enjoy food, friendship and entertainment with a barbecue, reminiscent of the early years at Texas A&M. The day closes with the Roll Call for the Absent ceremony, when over thirteen thousand people come together to honor and remember those who are no longer with us. Following the Singing Cadets, Aggie Band and Muster speaker, lights are dimmed and the roll call is called for Aggies who are no longer with us. As each name is called, a candle is lit and a friend or family member answers “here” to remind us all that each Aggie, though no longer present in body, will always remain with us in spirit. Muster will continue to serve as the foundation of Aggie Spirit, upholding those ideals and principles common to all students of Texas A&M, common to all Aggies, forever.
Corps of Cadets
The tradition of the Texas A&M University Corps of Cadets, a student military organization, is as old as the university itself. Originally established as an all-male military college, Texas A&M remained a primarily all-male military institution with mandatory membership in the Cadet Corps until 1965, when Corps membership became voluntary. The Corps brings young women and men from all walks of life into the ultimate Aggie experience. The military-inspired cadet program provides students a structured lifestyle where academic excellence is emphasized, balanced with a university life rich in extra-curricular and leadership opportunities available only to Corps members. Through the Corps experience, cadets learn master management and organizational skills and build their leadership capability. Many cadets graduate with an Academic Certificate in Leadership Studies along with their selected degree and begin careers in business, nonprofit or government. However, approximately 40 percent become commissioned officers and join one of the Military services upon graduation. Texas A&M has consistently produced more military officers than any other institution in the nation, except for the service academies. More than 225 of its graduates have become generals or admirals.
Agriculture and the life sciences have been an integral part of Texas A&M since 1876, when was founded as the "Agricultural & Mechanical College of Texas."

From long-established majors such as agronomy and animals sciences to newer programs such as forensics and spatial sciences, the College of Agriculture and Life Sciences is widely recognized as a leader in dozens of academic disciplines.

Our award-winning faculty members are discovering the fuels of the future, unlocking genetic mysteries to cure diseases and working to ensure the safety and abundance of the food supply. The college’s more than 400 distinguished faculty members include a Nobel Prize laureate, a Pulitzer Prize winner, and many others who are among the foremost scholars in their academic field.

Our nearly 6,500 students enrolled in the college choose courses of study from more than 80 undergraduate and graduate degree programs in 14 academic departments. With dedicated faculty and almost 60 academic advisors committed to student success, our college is a place that combines world-class research and teaching with genuine Aggie friendliness. Through the college, Texas A&M graduates more students in agriculturally-related fields than anywhere else in the country. Our former students are in positions of leadership in industry, business, government, and the non-profit sector around the world. Graduates find rewarding careers and are highly sought after. In some departments, such as poultry science, each graduate receives an average of eight job offers.
2. BRIEF BACKGROUND OF THE PROGRAM

2.1 The Graduate Program of Food Science and Technology

2.1.1 Mission and Program Overview

Interdisciplinary Graduate Faculty of Food Science and Technology (IFS)
Texas A&M University

Food Science and Technology is defined as the application of science and engineering to the manufacturing, processing, packaging, distribution, preparation and utilization of foods. The organization and operational characteristics of the Interdisciplinary Graduate Faculty of Food Science and Technology (IFS) are intended to be broad enough to permit inclusion of all academic aspects of Food Science and Technology as well as other disciplines that strengthen the graduate curriculum and enhance the academic rigor of the discipline.

The primary mission of the Interdisciplinary Graduate Faculty of Food Science and Technology (IFS) is to promote and administer the graduate program in Food Science and Technology in conformance with University System Rule 15.01.99.M7, the administrative framework for all Interdisciplinary Programs (IDPs) at Texas A&M University. Briefly, the IFS, through the Executive Committee and Chair, coordinates the graduate program, reviews and accepts applicants for admission, teaches graduate courses, assists with course assignments, performs periodic curricula assessments, approves new courses for submission to the College Graduate Program Committee, makes scholarship assignments, and ensures a rigorous course of study for M.S. and Ph.D. candidates. Additional responsibilities include assessment of the learning objectives identified in the strategic plan to improve curriculum and instruction, strengthen research and improve the overall effectiveness of graduate training. Ultimately, the program strives to provide and foster a strong academic framework for the training of candidates to earn a Master of Agriculture (given occasionally), Master of Science and/or Doctor of Philosophy degree in Food Science and Technology.

The IFS Faculty is currently composed of 29 Full Members, 6 Associate Members and 5 Adjunct Members actively engaged in a diversity of research and fully committed to graduate instruction in the discipline of Food Science. The interdisciplinatory approach combined with the established research programs of individual faculty provides students with exceptional research opportunities that enable them to have a broad yet meaningful graduate experience. In addition, the interdisciplinary graduate curriculum allows students the opportunity to utilize state-of-the-art analytical instrumentation as well as acquire experience in pilot plant food processing facilities with conventional equipment. This approach provides our graduate students with the advantage of actually applying theoretical concepts and then acquiring practical, hands-on experience to enable them to become successful problem solvers and leaders in their respective disciplines.

As of Spring 2009, the total graduate enrollment was 1 M.Ag., 31 M.S. and 10 Ph.D. candidates, respectively, dispersed across a variety of discipline areas such as Food Chemistry and Biochemistry, Pharmacometrics, Food Engineering, Toxicology, Food Processing Technology, Food Microbiology, Virology, Genetics, Horticultural Science, Plant Science, Animal Science, Poultry Science, Sensory Science, and Animal and Plant Physiology. Of the 42 total graduate students, 1. M.Ag., 12 M.S. and 9 Ph.D. candidates have filed degree plans with the Office of Graduate Studies. The acceptance rate of
graduate students into the IFS over the past 2 years has ranged from 7 to 24% depending on the availability of graduate positions within laboratories, and assistantship support from external grants. The average enrollment in the IFS curricula over the past five semesters is 40.8 students (64% female, 36% male) with the ethnicity profile of the current students being 45% International, 12% Hispanic, 38% White and 5% Asian/Oriental. Over the past 3 years, the IFS has had a 100% graduation rate and granted 23 M.S. and 19 Ph.D. degrees with excellent placement of graduates in academic, corporate or government positions. The numbers of graduate students are anticipated to increase in the IFS over the next 3 years due to the addition of new faculty in various departments since 2007 and established faculty becoming full members of the IFS (recent additions include Drs. Joe Sturino, Susanne Mertens-Talcott, Joseph Awika, Margaret Hardin, Matthew Taylor, Nancy Turner, Elsa Murano, Russell Cross and Tri Duong). Our former students are dispersed not only nationally, but globally and as a consequence, the Food Science graduate program at Texas A&M University is recognized for its strong international linkages.

The Food Science and Technology curricula has expanded over the past 3 years with the addition of 4 new courses and 1 under development: FSTC 687/ANSC 687 Sensory Evaluation of Foods (Rhonda Miller), FSTC/ANSC 697 Applied Food Microbiology (Margaret Hardin), FSTC 640/NUTR 640 Therapeutic Microbiology (Joseph Sturino) and FSTC 610/NUTR 610 Pharmacometrics of Food Compounds (Susanne Talcott) and FSTC/ANSC 689 Disease Mechanisms of Food-borne Pathogens (Dr. Elsa Murano) (syllabus being considered by the College Graduate Program Committee). These courses have added significant strength to the curriculum, but 3 courses (FSTC 634, FSTC 635 and FSTC 677) in the catalog that have been offered previously need to be taught to fully complement the curriculum.

Professional development of our students through oral presentation of their research and defense of their research approach hones their communication and critical thinking skills and is vitally important to their future success. A weekly seminar series not only enhances these skills, but also provides and opportunity to hear invited presentations by IFS faculty as well as national and international speakers of prominence in the field of Food Science and Technology.

In a recent survey of U.S. Food Science Graduate Program Stipends, the IFS at Texas A&M University ranked 6th in the level of Ph.D. stipend offered ($19,640) out of a total of 37 Universities surveyed. Over the past 3 years, a total of $126,136 has been awarded to graduate students in the form of two competitive annual Regent’s Fellowships ($12,000 ea), 5-9 academic scholarships ($1,000 ea) and 13-18 travel scholarships (~$500 ea). These expenditures represented distribution of significant portion of the funds allocated to the IFS by the College of Agriculture and Life Sciences, Office of the Vice President of Research and the Office of Graduate Studies. The policy of the IFS has been to expend almost all funding received on graduate student support after operational expenses for the IFS have been covered. The travel grants are made available to eligible students presenting their research at national level professional meetings while competitive academic scholarships enable students to be eligible for in-state funding. Regent’s Fellowships are designated for recruitment of new, incoming graduate students who have exceptional academic qualifications. These awards are deemed to be especially important because of the opportunities that they provide for students to grow professionally and for the expectation that they create to excel in their own discipline.

Continuing support of an Administrative Assistant is essential to provide administrative management of graduate student applications, timely correspondence, assistance with seminars and travel arrangements, tracking of graduate students, compiling graduate survey information for assessment purposes, assistance with input into Weave-on-Line, assimilation of annual reports, management of the
**Administrative Framework for Interdisciplinary Programs – University Rule 15.01.99.M7**

An Interdisciplinary Degree Program (IDP), specifically the Interdisciplinary Graduate Faculty of Food Science and Technology (IFS), involves a group of faculty from more than one discipline representing single or multiple colleges, organized and administered by the procedures outlined in University Rule 15.01.99.M7 for the purpose of enhancing research and scholarly activities and overseeing graduate and/or undergraduate education for a degree program that does not exist in an existing academic unit. Approval of interdisciplinary degrees themselves are granted through the Texas Higher Education Coordinating Board. Oversight of IDPs falls under the responsibility of the Council of Participating Deans (COPD) which consists of the Deans of the colleges having faculty participating in the IDP, together with the Vice President of Research (VPR), and the Dean of Graduate Studies (DGS) for IDP’s offering graduate degrees and/or the Associate Provost for Undergraduate Programs (APUP) for IDP’s offering undergraduate degrees. Dr. Mark Hussey, Dean of the College of Agriculture and Life Sciences, serves as the lead Dean for oversight of the IFS. Dr. Hussey, in concert with the Office of Graduate Studies and Vice President of Research, conducts a rigorous annual review of the accomplishments or deficiencies of the IFS to determine if the program is performing successfully and if it should be continued. Faculty participation in an IDP may be incorporated into promotion, tenure, and merit raise decisions based upon recommendations of the IDP. In addition, graduate degrees granted IDP’s are also subject to external review as part of the University’s commitment to academic excellence.

Presently, there are 11 Interdisciplinary Degree Programs (IDP) at the university level that are approved to offer graduate degrees by the Texas Higher Education Coordinating Board. These are as follows:

<table>
<thead>
<tr>
<th>Interdisciplinary Degree Program</th>
<th>Masters</th>
<th>Doctorate</th>
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<tbody>
<tr>
<td>Agribusiness</td>
<td>MAB</td>
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<tr>
<td>Biotechnology</td>
<td>MBIOT</td>
<td>-</td>
</tr>
<tr>
<td>Engineering Systems Management 1</td>
<td>MS</td>
<td>-</td>
</tr>
<tr>
<td>Food Science and Technology</td>
<td>MS</td>
<td>PhD</td>
</tr>
<tr>
<td>Genetics 2</td>
<td>MS</td>
<td>PhD</td>
</tr>
<tr>
<td>Materials Science and Engineering</td>
<td>MS, ME</td>
<td>PhD</td>
</tr>
<tr>
<td>Molecular and Environmental Plant Sciences</td>
<td>MS</td>
<td>PhD</td>
</tr>
<tr>
<td>Nutrition</td>
<td>MS</td>
<td>PhD</td>
</tr>
<tr>
<td>Water Management and Hydrological Science (WMHS)</td>
<td>MS</td>
<td>PhD</td>
</tr>
<tr>
<td>Toxicology</td>
<td>MS</td>
<td>PhD</td>
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The earliest interdisciplinary faculty was the Interdisciplinary Faculty of Genetics that was formally recognized in 1989, although the official origins of that faculty began in 1983. The second was the Interdisciplinary Faculty of Toxicology that was established in 1989. Although the undergraduate Food Science and Technology curriculum had its beginnings in the late 1940’s, it was not until May 25, 1990
that interdisciplinary research and graduate education in Food Science and Technology was formally constituted into an IDP and the by-laws approved.

**Charter Members of the IFS**

<table>
<thead>
<tr>
<th>Dr. E.E. Burns, Horticulture</th>
<th>Dr. J.P. Nichols, Agricultural Economics</th>
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<tr>
<td>Dr. J.B. Carey, Poultry Science</td>
<td>Dr. T.D. Phillips, Veterinary Public Health</td>
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<tr>
<td>Dr. Z.L. Carpenter, Animal Science</td>
<td>Dr. K.C. Rhee, Soil and Crop Sciences</td>
</tr>
<tr>
<td>Dr. A.B. Childers, Veterinary Public Health</td>
<td>Dr. K.S. Rhee, Animal Science</td>
</tr>
<tr>
<td>Dr. H.R. Cross, Animal Science</td>
<td>Dr. R.L. Richter, Animal Science</td>
</tr>
<tr>
<td>Dr. J.H. Denton, Poultry Science</td>
<td>Dr. L.W. Rooney, Soil and Crop Sciences</td>
</tr>
<tr>
<td>Dr. C.W. Dill, Animal Science</td>
<td>Dr. L.H. Russell, Veterinary Public Health</td>
</tr>
<tr>
<td>Dr. C.R. Engler, Agricultural Engineering</td>
<td>Dr. A.R. Sams, Poultry Science</td>
</tr>
<tr>
<td>Dr. A. Garcia, III, Agricultural Engineering</td>
<td>Dr. J.W. Savell, Animal Science</td>
</tr>
<tr>
<td>Dr. F.A. Gardner, Poultry Science</td>
<td>Dr. G.C. Smith, Animal Science</td>
</tr>
<tr>
<td>Dr. S.W. Gyeszly, Mechanical Engineering</td>
<td>Dr. D.A. Suter, Agricultural Engineering</td>
</tr>
<tr>
<td>Dr. N.D. Heidelbaugh, Veterinary Public Health</td>
<td>Dr. V.E. Sweat, Agricultural Engineering</td>
</tr>
<tr>
<td>Dr. J.T. Keeton, Animal Science</td>
<td>Dr. C. Vanderzant, Animal Science</td>
</tr>
<tr>
<td>Dr. K.S. Kubena, Animal Science</td>
<td>Dr. A.B. Wagner, Horticulture</td>
</tr>
<tr>
<td>Dr. O.R. Kunze, Agricultural Engineering</td>
<td>Dr. R.D. Waniska, Soil and Crop Sciences</td>
</tr>
<tr>
<td>Dr. J.R. Lupton, Animal Science</td>
<td></td>
</tr>
<tr>
<td>Dr. E.W. Lusas, Soil and Crop Sciences</td>
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<tr>
<td>Dr. R.K. Miller, Animal Science</td>
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**2.1.3 Brief History**

Food Science and Technology at Texas A&M University had its formal beginning in the years immediately after World War II. The need for a prescribed academic and research program was accentuated by the wartime crisis for preserved food. Former President Lyndon B. Johnson, then U.S. Representative, worked with Dr. G. W. Adriance in 1943 to obtain equipment necessary to install a canning facility on the A&M campus.

The first professor to teach commercial food preservation was Professor F. R. Brison, who helped train people in the community to utilize the cannery during the wartime effort. "Mr. B" was happy to relinquish this responsibility to those returning from the war. Dr. R. F. Cain and Mr. T. S. Stephens actively set about to develop programs which utilized the cannery, that was initially established in Scoates Hall (Biological and Agricultural Engineering Building). Refrigeration facilities were acquired through war surplus and a gas-fired dehydrator was transferred from the Texas Agricultural Experiment Station at Angleton to College Station. Dr. Harold Reed moved from Angleton to College Station and carried out extensive dehydration experiments. He also was active in assisting the fig industry to meet war-time demands.

In 1947, a committee was appointed by Dean Shepherdson to develop a curriculum in Food Technology. This group included Dr. A. V. Moore in Dairy Husbandry, Mr. Roy Snyder in Animal Husbandry, Mr. Price Hobgood in Agricultural Engineering, Mr. H. M. Reed in Horticulture, and Mr. E. D. Parnell in Poultry Husbandry. The first degree was first offered in 1948 as an intensive five-year program, and although the enrollment was not large, the graduates were outstandingly successful in the food industry.
In 1951, it was decided to concentrate the curriculum into a four-year plan. This had the effect of enriching the training, and the Texas A&M University program has since been a model of basic scientific training for the food technologist. The Institute of Food Technologists (IFT) has traditionally honored the program as one of the best and the curriculum has been approved by IFT since the program’s inception. Texas A&M University was one of the twelve original universities in the United States to offer academic training in Food Technology. All three degrees, Bachelor of Science (B.S.), Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) have been offered since the inception of the four-year program in the early 1950’s.

Enrollment in Food Technology was almost non-existent until the Adriance Laboratory was built in 1956 and Dr. E. E. Burns was employed to develop a program in food preservation. The building was dedicated in October 1956 at a meeting sponsored by the Texas Section of the Institute of Food Technologists. Dr. O. D. Butler, then in charge of the Meat Laboratory at Texas A&M University, was chairman of the Texas Section IFT. Texas A&M University president, David Morgan, and the Board of Directors were present. Chancellor M. T. Harrington dedicated the building as the Adriance Laboratory in honor of the first head of the Chemistry Department at Texas A&M University and also the father of Dr. G. W. Adriance, then head of the Department of Horticulture. Mr. Ben Golub, President of Towie Food Company, accepted the facility on behalf of the food industry of Texas.

Coursework in food processing was immediately offered by Dr. Burns, and in response to an IFT scholarship announcement by Dr. A. V. Moore, six undergraduates transferred to the Food Technology option. The Dean of Agriculture, Dr. Jimmie Adams, appointed a Food Technology Committee consisting of Dr. A. B. Moore as chairman and Dr. O. D. Butler and Dr. E. E. Burns as members to develop and expand the program. The program grew slowly and in 1962, Dean R. E. Patterson established the Animal Science Department as the coordinating department for the program. This facilitated the flow of paperwork and identified the food technology staff.

Student enrollment increased first at the graduate level. The Food Technology Committee felt that outstanding scientists in the various commodity areas could offer graduate courses for a limited numbers of students in coordination with ongoing research programs. An informal graduate student discussion group was formed in 1971. Students participated actively from the various departments, and undergraduates were gradually included in the group. This resulted finally in the formal recognition of the Food Science and Technology Club in 1974. The name of the curriculum was finally changed from Food Technology to Food Science and Technology in 1976. This program was very successful and was the foundation of the Nutrition program at Texas A&M University.

Growth of the academic program in Food Science and Technology has paralleled the recent growth of Texas A&M University and the admission of females to the University in 1972 has had considerable impact the number of Food Science graduates. To better serve the needs of students, Dr. R. C. Potts, Associate Dean of Agriculture, asked Dr. E. E. Burns to develop a Foods and Nutrition option, within the Food Science and Technology program, which would be acceptable to the American Dietetic Association (ADA). After three years of work, the program was accredited by the ADA in January 1977. Meanwhile, tentative approval had allowed enrollment of students in the program. The first nutrition students graduated in May of 1977.

There are currently two options in Food Science and Technology. The Food Science option, approved by the IFT, prepares students for technical careers in food science while the Industry option developed by Dr. C. W. Dill was designed to serve the immediate needs of industry. The Industry option was
developed to accommodate students who did not want to take the more rigorous science courses in the Food Science option. The Industry option proved to be popular and increased the enrollment in the program. Many of these students have gone on to take additional courses required for graduate school and have done quite well.

A Foods and Nutrition option in Food Science and Technology was initially disapproved by the Texas Higher Education Coordinating Board, but in 1982, the Foods and Nutrition option was revised and called Scientific Nutrition, which was accepted by the Texas Higher Education Coordinating Board. The Scientific Nutrition program was developed by Animal Science Department faculty in the Human Nutrition section and additional nutrition courses were added to the curriculum. Students seeking a Scientific Nutrition degree also took a number of Food Science and Technology courses.

The Food Science and Technology program was managed by an interdepartmental committee that made curriculum changes and met IFT guidelines. New courses were initiated while others were modified. Programs in Seafood Technology and Dairy Technology were offered for several years, but were discontinued when key professors retired or left the University.

Intercollegiate faculties at Texas A&M University were formed in the early 1990s to provide an interdisciplinary approach to research and graduate education in specific discipline areas. The Interdisciplinary Graduate Faculties of Food Science and Technology, Nutrition and Toxicology all relate directly to foods and many Food Science and Technology faculty belong to the Nutrition and/or Toxicology faculties. In practice, a core group of IFS faculty actually provide the impetus for Food Science and Technology graduate program.

2.1.4 Related Centers and Programs

**Center for Food Safety** – Dr. Kerri Harris, Director and HACCP Coordinator

The purpose of the Center for Food Safety within the Department of Animal Science (ANSC) is to expand and improve food safety activities within the Department and across other departments or units, and to enhance external visibility and public knowledge of these activities. The primary goals of the Center are to:

- Coordinate food safety research, outreach and training efforts among participants in the Food Safety Center
- Promote food safety research, technological innovations and accomplishments to end users and the consuming public
- Build and maintain strong relationships with regulatory agencies and other entities that impact food safety
- Assist with the development of sound regulatory policy through the application of science and evidence-based information
Food Protein Research and Development Center – Dr. Mian Riaz, Director
http://foodprotein.tamu.edu/index.php

The Food Protein R&D Center (FPRDC) is an engineering process development, innovation, and training center, focused on adding value to diverse biological materials, including oilseeds, grains, nuts, citrus, vegetables, waste biomass, waxes, petroleum and natural/botanical oils, liquid/fluid process streams, and water. The Center is a part of the Texas A&M University System and administered through the Texas Engineering Experiment Station.

Established in 1939, the Food Protein Research and Development Center is one of the oldest land-grant agricultural research and service programs in the nation. It specializes in process development of diverse agricultural crops and animal products into food, feed and industrial ingredients. The Center also demonstrates the feasibility of novel ingredients in various commercial food and feed applications. The scope of the Center has continued to evolve with the development of separation sciences in the oilseed processing industry. Basic research and testing, technology development and training projects are conducted for private industry, trade associations and state, federal and international agencies. The program is partially funded by the Texas Food and Fibers Commission and reviewed by its Industry Advisory Committee.

The program offers the following services, which are unique among North American universities:

- Research Oil Mill for screw press and solvent extraction of oilseeds, industrial crops, flavor and color materials
- Edible Oils Pilot Plant for refining, bleaching, hydrogenating and deodorizing edible fats and oils
- Vegetable Food Proteins Pilot Plant for preparation and modification of food protein flours, concentrates and isolates
- GLP Program for processing test plot quantities of oilseed and cereal crops in a manner representative of commercial practices for the domestic agricultural chemicals industry
- Extrusion Program, with eight extruders of various sizes, for development of continuous processes for preparation of food, pet foods and feeds products
- Membrane Separations Laboratory, a leader in application of aqueous and solvent micro-, ultra- and reverse osmosis filtration in food processing
Many of the staff have multidisciplinary training and are bi- or multilingual. Interdisciplinary teams frequently are formed with other agriculture, business, engineering, medical and veterinary science personnel to address problems in processing crops, food and feeds manufacture, human and animal nutrition, and business development. The Food Protein R&D Center has been providing training courses since 1981, and currently offers 10 to 12 practical short courses each year on a variety of topics such as cottonseed and soybeans extraction, edible processing, feeds extrusion and membrane separations, plus special training programs that attract domestic and international participation.

**National Center for Electron-Beam Research** – Dr. Suresh Pillai, Director [http://www.tamu.edu/ebeam/](http://www.tamu.edu/ebeam/)

The Electron Beam Food Research Facility is the operational component of the National Center for Electron Beam Food Research and was opened May 4th, 2001. The NCEBR is committed to being the leader in quality service dedicated to electron beam and x-ray dose delivery for researchers from industry, academia and government. The Center provides the same quality service for all customers and reflects the integrity of Texas A&M University. To sustain this commitment, the Center’s employees are dedicated to continuous improvement in services, to a team effort at all times and to achieving maximum customer satisfaction with our research services.
The Electron Beam Research Facility at Texas A&M University is a dual modality facility. There are 2 vertically mounted opposing 10 MeV (Million Electron Volt), 18 Kilowatt Electron Beam Linear Accelerators (LINAC) and a single horizontally mounted 5 MeV, 15 Kilowatt X-Ray Linear Accelerator. Energies from these radiation sources are too low to induce radioactivity in any material, including food.

In the E-Beam Mode, electrons are accelerated, to near the speed of light using microwaves, into the product breaking the DNA chain of pathogens in the product. Products receive radiant energy from both the upper and lower accelerators so that product flipping is not required, and processing can be accomplished in seconds.

In the X-Ray Mode, electrons are accelerated to near the speed of light using microwaves into a dense metal which emits X-Rays that pass through the product breaking the DNA chain of pathogens in the product. The product will pass in front of the beam and then be rotated 180° to make a pass on it’s opposite side. X-Ray is primarily used with bulky, non-uniform, high-density products.

The A&M research facility utilizes a single conveyance system to move the product in and out of the process chamber. All LINACs and conveyers are controlled with Allen Bradley Programmable Logic Control (PLC) software. This software, along with RS View Human Interface software, enables the electronic pasteurization process to be virtually automated and very tightly controlled with few staffing requirements.

Two distinct modes of operation exist, one for research and one for consumable foods. Research product enters the facility through a dock or door directly to a laboratory area for dosimetry. Most material handling specific to the research, but not directly related to electron beam (e-beam) or x-ray exposure, is completed in a laboratory not located on the premises of the Electron Beam Food Research Facility (EBFRF). This research product enters the treatment area by a separate pathway that only intersects the beam at the conveyor belt that moves the product to the source of the beam (ionizing particles or photons).

Food products that may be sold to the public, enter into a USDA-FSIS inspected area and are retained in that area throughout processing. These products are reloaded onto the truck or conveyance after processing and are not stored on premises. Both food and research items can be processed either by e-beam or x-ray. E-beam is made by accelerating electrons to about 99.9% the speed of light or another way of looking at it, to an energy of 10 MeV. 10 MeV is about $1.6 \times 10^{-12}$ Joules or less than a billionth of a BTU per electron. When electrons are used the accelerators are arranged so that they travel up (toward the bottom of the product) and also a second accelerator is aimed down to strike the top of the product. Either or both can be used. Since the electrons only travel through about two inches of a product that has a density similar to water, the center usually uses both.

2.2 Administrative Structure and Governance

Governance of the IFS is by a six-member Executive Committee that is elected by the faculty membership to serve a three-year term with two members rotating off each year. The chair is elected to a three-year term on the Executive Committee. A vice-chair may be elected within the Executive Committee. The Executive Committee is responsible for administrative management of the faculty. The current By-laws may be found in the Appendix and provides more detail for governance of the faculty.

The Faculty, through the Executive Committee and Chair, coordinates the graduate program, reviews
and accepts applicants for admission, teaches graduate courses, assists with course assignments, performs periodic curricula assessments, approves new courses for submission to the College Graduate Program Committee, makes scholarship assignments and ensures a rigorous course of study for M.S. and Ph.D. candidates. Additional responsibilities include assessment of the learning objectives identified in the strategic plan to improve curriculum and instruction, strengthen research and improve the overall effectiveness of graduate training.

**ADMINISTRATIVE STRUCTURE**

**INTERDISCIPLINARY FACULTY OF FOOD SCIENCE AND TECHNOLOGY**

- **VICE PRESIDENT FOR RESEARCH**
- **OFFICE OF GRADUATE STUDIES**
- **COUNCIL OF PARTICIPATING DEANS**

- **COLLEGE OF AGRICULTURE AND LIFE SCIENCES**
  - **DR. MARK HUSSEY, DEAN**

- **IFS EXECUTIVE COMMITTEE**
  - **INTERDISCIPLINARY FACULTY OF FOOD SCIENCE AND TECHNOLOGY**

- **ADMINISTRATIVE ASSISTANT**
  - (Audra Tackitt)

- **PARTICIPATING COLLEGES & DEPARTMENTS**
Administrative Structure of Interdisciplinary Graduate Faculty of Food Science

Participating Colleges and Departments

**College of Veterinary Medicine**
Veterinary Integrative Biosciences

**College of Agriculture and Life Sciences**
Animal Science
Biological and Agricultural Engineering
Horticulture Science
Nutrition and Food Science
Poultry Science
Soil and Crop Science

2.2.1 Executive Committee 2009-10

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<tbody>
<tr>
<td>Associate Professor</td>
<td>Professor of Food Engineering</td>
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<tr>
<td>Department of Animal Science</td>
<td>Biological and Agricultural Engineering Dept.</td>
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<thead>
<tr>
<th>Luis Cisneros-Zevallos – HORT (2011)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Associate Professor</td>
</tr>
<tr>
<td>Department of Horticultural Sciences</td>
</tr>
</tbody>
</table>

30
<table>
<thead>
<tr>
<th>Name</th>
<th>Program</th>
<th>Title and Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peter Murano</td>
<td>NFSC (2012)</td>
<td>Associate Professor, Director, Institute of Obesity Research and Program Evaluation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nutrition and Food Science Department</td>
</tr>
<tr>
<td>Jeff Savell</td>
<td>ANSC (2012)</td>
<td>Regents Professor and E. M. “Manny” Rosenthal Chairholder</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Department of Animal Science</td>
</tr>
<tr>
<td>Jimmy Keeton</td>
<td>NFSC (2010)</td>
<td>Professor, AgriLife Fellow and Head Nutrition and Food Science Department Chair</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Interdisciplinary Graduate Faculty of Food Science and Technology</td>
</tr>
<tr>
<td>Ms. Audra Tackitt</td>
<td></td>
<td>Administrative Assistant</td>
</tr>
</tbody>
</table>
2.2.2 Committees

2008-09 IFS Committee List

Curriculum – Review proposed courses, assist with course assignments, advise EC
  Peter Murano
  Alejandro Castillo
  Margaret Hardin
  Elena Castell-Perez

Graduate Program – Membership, process applications, Weave-On-Line assessment, maintain and update website
  Steve Talcott
  Elena Castell-Perez
  Alejandro Castillo

Seminar – Assist with seminar, invite guest speakers, host as needed
  Joseph Awika
  Luis Cisneros
  Elena Castell-Perez
  Steve Talcott
  Susanne Talcott
  Lloyd Rooney

Scholarship and Travel Awards – Appointed by EC, solicit, evaluate and select outstanding student, scholarship recipients, travel awards
  Mian Riaz
  Wes Osburn
  Rhonda Miller
  Margaret Hardin
  Luis Cisneros

By-laws – Appointed as needed to make changes in the by-laws.
  Steve Talcott
  Elena Castell-Perez
  Rhonda Miller

Promotion and Tenure Committee – All tenured Associate and Full Professors on the Interdisciplinary Faculty.

2.2.3 Membership Profile (Rank, Program Area, Gender, Ethnicity)

The IFS Faculty is currently composed of 29 Full Members, 6 Associate Members and 5 Adjunct Members (Table 2.1) actively engaged in a diversity of research and fully committed to graduate instruction in the discipline of Food Science. In terms of academic rank, there are 5 Assistant Professors, 12 Associate
Professors, 11 Professors and 1 Distinguished Professor. Figure 1 shows the ethnicity (70% white, 17.2% Hispanic, 10.4% Asian/Oriental, 3.4% African/Other), gender (65% male, 35% female) and professorial rank distributions of the faculty. Since 2007, several new and established faculty have joined the IFS (recent additions include Drs. Joe Sturino, Susanne Talcott, Joseph Awika, Margaret Hardin, Matthew Taylor, Nancy Turner, Elsa Murano, Russell Cross and Tri Duong) and have begun to develop new courses or teach existing courses that have not been taught in recent years. These new additions replace faculty who have accepted new appointments, moved into administrative positions, retired or are deceased.

Biographical summaries (3-yr) of individual faculty can be found in the appended materials. These sketches give a summary of research, peer-reviewed publications, courses taught, honors and awards received and recent grants and contracts. Additional appended materials provide separate listings of grant acquisitions, peer-reviewed publications and graduate student abstracts presented at professional meetings.

(Insert Figure 1. Ethnicity, Gender and Professorial Rank Distribution of the IFS Faculty)
Table 2.1 Intercollegiate Faculty of Food Science and Technology Membership

<table>
<thead>
<tr>
<th>TITLE</th>
<th>NAME</th>
<th>DEPT</th>
<th>PROGRAM AREA</th>
<th>ETHNICITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professor</td>
<td>Dr. Gary Acuff</td>
<td>ANSC</td>
<td>Food Micro. &amp; Safety</td>
<td>White, male</td>
</tr>
<tr>
<td>Asst. Professor</td>
<td>Dr. Joseph Awika</td>
<td>SCSC</td>
<td>Cereal Chemistry &amp; Carbohydrates</td>
<td>African, male</td>
</tr>
<tr>
<td>Assoc. Professor</td>
<td>Dr. Elena Castell-Perez EC</td>
<td>BAEN</td>
<td>Food Eng. &amp; Rheology</td>
<td>Hispanic, female</td>
</tr>
<tr>
<td>Assoc. Professor</td>
<td>Dr. Alejandro Castillo EC</td>
<td>ANSC</td>
<td>Food Micro., Fruits, Veg. &amp; Meat Prod.</td>
<td>Hispanic, male</td>
</tr>
<tr>
<td>Assoc. Professor</td>
<td>Dr. Luis Cisneros-Zevallos EC</td>
<td>HORT</td>
<td>Phytochemistry, Post Harvest Fruit &amp; Veg.</td>
<td>Hispanic, male</td>
</tr>
<tr>
<td>Professor</td>
<td>Dr. Russell Cross</td>
<td>ANSC</td>
<td>Food Safety &amp; Meat Products</td>
<td>White, male</td>
</tr>
<tr>
<td>Asst. Professor</td>
<td>Dr. Tri Duong</td>
<td>POSC</td>
<td>Food Micro. &amp; Functional Genomics</td>
<td>Asian, male</td>
</tr>
<tr>
<td>Assoc. Professor</td>
<td>Dr. Margaret Hardin</td>
<td>ANSC</td>
<td>Food Microbiology &amp; Safety</td>
<td>White, female</td>
</tr>
<tr>
<td>Assoc. Professor</td>
<td>Dr. Kerri Harris</td>
<td>ANSC</td>
<td>Food Safety, HACCP &amp; Policy</td>
<td>White, female</td>
</tr>
<tr>
<td>Professor &amp; Head</td>
<td>Dr. Jimmy Keeton C</td>
<td>NFSC</td>
<td>Meat Product Safety &amp; Quality</td>
<td>White, male</td>
</tr>
<tr>
<td>Professor</td>
<td>Dr. Karen Kubena</td>
<td>NFSC</td>
<td>Nutritional Assessment &amp; Dietetics</td>
<td>White, female</td>
</tr>
<tr>
<td>Distinguished Professor</td>
<td>Dr. Joanne Lupton</td>
<td>NFSC</td>
<td>Dietary Fiber, Colon Cancer, Inflammation &amp; Fiber</td>
<td>White, female</td>
</tr>
<tr>
<td>Professor</td>
<td>Dr. Rhonda Miller</td>
<td>ANSC</td>
<td>Meat Technology &amp; Sensory Evaluation</td>
<td>White, female</td>
</tr>
<tr>
<td>Assoc. Professor</td>
<td>Dr. Rosana Moreira</td>
<td>BAEN</td>
<td>Food Eng., E-Beam Appl. &amp; modeling</td>
<td>Hispanic, female</td>
</tr>
<tr>
<td>Professor &amp; President Emerita</td>
<td>Dr. Elsa Murano</td>
<td>NFSC</td>
<td>Food Microbiology, Safety &amp; Policy</td>
<td>Hispanic, female</td>
</tr>
<tr>
<td>Assoc. Professor</td>
<td>Dr. Peter Murano EC</td>
<td>NFSC</td>
<td>Nutrition Policy, Obesity &amp; Food Science</td>
<td>White, male</td>
</tr>
<tr>
<td>Assoc. Professor</td>
<td>Dr. Wesley Osburn</td>
<td>ANSC</td>
<td>Meat Technology &amp; Processing</td>
<td>White, male</td>
</tr>
<tr>
<td>Professor</td>
<td>Dr. Timothy Phillips</td>
<td>VAPH</td>
<td>Molecular Toxicology</td>
<td>White, male</td>
</tr>
<tr>
<td>Assoc. Professor</td>
<td>Dr. Suresh Pillai</td>
<td>POSC</td>
<td>Environmental Micro. &amp; Dir. E-Beam Ctr.</td>
<td>Asian, male</td>
</tr>
<tr>
<td>Research Scientist</td>
<td>Dr. Mian Riaz</td>
<td>TEES</td>
<td>Food Processing &amp; Extrusion Technology</td>
<td>Asian, male</td>
</tr>
<tr>
<td>Professor</td>
<td>Dr. Lloyd Rooney</td>
<td>SCSC</td>
<td>Cereal Quality &amp; Carbohydrate Chemistry</td>
<td>White, male</td>
</tr>
<tr>
<td>Professor</td>
<td>Dr. Leon Russell, Jr.</td>
<td>VAPH</td>
<td>Food Toxicology</td>
<td>White, male</td>
</tr>
<tr>
<td>Professor</td>
<td>Dr. Jeffrey Savell EC</td>
<td>ANSC</td>
<td>Meat Quality, Nutrition &amp;</td>
<td>White, male</td>
</tr>
</tbody>
</table>
### 2.2.4 Budget and Resources (3-Year Summary)

Budgetary allocations from the Vice President of Research (VPR), Office of Graduate Studies (OGS) and College of Agriculture and Life Sciences are shown in Table 2.2. Expenditures of these funds are presented in Table 2.3. In August 2008, Mrs. Audra Tackitt’s current position was allocated to the Interdisciplinary Faculties of Food Science and Nutrition, respectively, to assist in administering the programs and provide support to the chairs of each faculty. Prior to this, each faculty was responsible for hiring their own assistant or seeking administrative support from the “home” department of the faculty. With the increased need for faculties to be more proactive in managing a larger applicant pool, assessing their curricula and programs, tracking financial expenditures and filing more extensive annual reports required by the respective organizations with administrative oversight, an administrative assistant has become an essential component for efficient operation of the interdisciplinary faculty.

Although the program support allocated to the IFS in the past has covered most expenses, the added expectations on both the Chair and Executive Committee have dramatically increased their administrative responsibility. Some budgetary adjustments that are needed to maintain program excellence that were identified in the SWOT analysis during the strategic planning process are:

- An administrative stipend ($300/mo has been suggested) and some release time from normal duties should be given to chairs to compensate for the time and effort required to administer the IFS program

- Support for a stronger graduate student seminar series is needed to bring in 1 or 2 nationally or internationally prominent speakers ($5,000 per semester is suggested) to keep abreast of current and emerging areas of research in Food Science and Technology. This also brings visibility of the TAMU graduate program to other graduate programs of prominence.

- Additional recruitment funds (for travel) are needed to bring in top graduate candidates annually that would have high impact on enhancing the quality of Food Science research programs ($500 per person is suggested)

- Additional budget resources are needed to provide for a cost of living and/or a merit raise to the

---

<table>
<thead>
<tr>
<th></th>
<th>Safety</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professor</td>
<td>Dr. Stephen Smith</td>
</tr>
<tr>
<td></td>
<td>ANSC</td>
</tr>
<tr>
<td></td>
<td>Meat Biochemistry &amp; Cell Physiology</td>
</tr>
<tr>
<td></td>
<td>White, male</td>
</tr>
<tr>
<td>Asst. Professor</td>
<td>Dr. Joe Sturino</td>
</tr>
<tr>
<td></td>
<td>NFSC</td>
</tr>
<tr>
<td></td>
<td>Therapeutic Micro., Probiotics &amp; Prebiotics</td>
</tr>
<tr>
<td></td>
<td>White, male</td>
</tr>
<tr>
<td>Assoc. Professor</td>
<td>Dr. Steve Talcott</td>
</tr>
<tr>
<td></td>
<td>NFSC</td>
</tr>
<tr>
<td></td>
<td>Food Chemistry &amp; Phytochemicals</td>
</tr>
<tr>
<td></td>
<td>White, male</td>
</tr>
<tr>
<td>Asst. Professor</td>
<td>Dr. Susanne Talcott</td>
</tr>
<tr>
<td></td>
<td>NFSC</td>
</tr>
<tr>
<td></td>
<td>Pharmacokinetics &amp; Bioactive Compnds.</td>
</tr>
<tr>
<td></td>
<td>White, female</td>
</tr>
<tr>
<td>Asst. Professor</td>
<td>Dr. Matthew Taylor</td>
</tr>
<tr>
<td></td>
<td>ANSC</td>
</tr>
<tr>
<td></td>
<td>Food Microbiology &amp; Safety</td>
</tr>
<tr>
<td></td>
<td>White, male</td>
</tr>
<tr>
<td>Assoc. Professor</td>
<td>Dr. Nancy Turner</td>
</tr>
<tr>
<td></td>
<td>NFSC</td>
</tr>
<tr>
<td></td>
<td>Dietary Fiber, Colon Cancer, Inflammation</td>
</tr>
<tr>
<td></td>
<td>White, female</td>
</tr>
</tbody>
</table>

EC = Executive Committee; C = Chair
Administrative Assistant and not reduce the total allocation to the IFS operating budget (a 3% annual increase in the Administrative Assistant salary allocation is suggested)

Table 2.2 IFS Allocations (3-year Summary)

<table>
<thead>
<tr>
<th>Year</th>
<th>2007-08</th>
<th>2008-09</th>
<th>2009-10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vice Pres. Res. &amp; Off. Grad. Stud.</td>
<td>24,000</td>
<td>23,000</td>
<td>23,000</td>
</tr>
<tr>
<td>College of Ag. &amp; Life Sci. (Salary Allocation)</td>
<td>22,000</td>
<td>36,000</td>
<td>36,000</td>
</tr>
<tr>
<td>Total</td>
<td>46,000</td>
<td>59,000</td>
<td>59,000</td>
</tr>
</tbody>
</table>

Table 2.3 IFS Expenditures (3-year Summary)

<table>
<thead>
<tr>
<th>Year</th>
<th>2007-08</th>
<th>2008-09</th>
<th>2009-10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regents Fellowships</td>
<td>24,000</td>
<td>24,000*</td>
<td>24,000*</td>
</tr>
<tr>
<td>Travel Awards</td>
<td>8,996</td>
<td>9,000 (est.)*</td>
<td>10,000 (est.)*</td>
</tr>
<tr>
<td>Scholarships</td>
<td>9,000</td>
<td>8,000 (est.)*</td>
<td>7,000 (est.)*</td>
</tr>
<tr>
<td>Website Maintenance</td>
<td>930</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Administrative Asst. (Added 08-09)</td>
<td>–</td>
<td>confidential</td>
<td>confidential</td>
</tr>
<tr>
<td>Operations &amp; Maintenance</td>
<td>1,000</td>
<td>2,107</td>
<td>4,000***</td>
</tr>
<tr>
<td>Balance</td>
<td>2,074</td>
<td>1,411</td>
<td>TBD</td>
</tr>
</tbody>
</table>

*$1,000 was taken from operating to increase the Regent’s Fellowships to $24,000 (two $12,000 awards will be given 09-10)
**More travel awards and scholarships may be awarded depending upon actual expenditures for O&M by the end of the fiscal year (August 31, 2009).
***$4,000 has been allocated for office supplies, replacement equipment, fall social and possible graduate seminar activities. If more travel awards or scholarships are needed, these funds will be expended for that purpose.

2.2. 5 Administrative Assistant – Ms. Audra Tackitt

Ms. Audra Tackitt was hired January 2009 as a joint Administrative Assistant to the Interdisciplinary Faculties of Nutrition and Food Science and Technology. She serves and assists the respective chairs and ECs of the Faculties. Management of the IFS, includes but is not limited to (sorting mail, answering inquiries, communicating with current students via e-mail or phone, answering e-mails from faculty and other A&M Personnel, typing memos/letters and other correspondence). She is responsible for a host of duties such as posting job announcements, sending out reminders for meetings and deadlines, and attending and recording the minutes in EC meetings and Annual Faculty meetings. She is also responsible for compiling graduate applications and disseminating these for review by the faculty, correspondence with applicants, handling general graduate program inquiries, managing the list serves of each respective faculty, assimilating data for required reports, and will be managing the Content Management based websites of the IFN and IFS Faculties.
2.3 Application Process, Admissions Criteria, Evaluation and Selection Procedures

Interdisciplinary Faculty of Food Science & Technology
Application Standard Operating Procedures

Application Deadlines for Fall 2009 Entry:
March 1 – general applicants

Application Deadlines for Spring 2010 Entry:
August 1 – general applicants

*Prospective students can apply after these deadlines and still be admitted if spaces are still available. Domestic students can be admitted as late as the week that classes start. International students must allow enough time for application processing and visa processing which takes 6 weeks or more.

Minimum Requirements:
3.0 GPA during last 60 hours of undergraduate coursework
1050 GRE (Combined Verbal and Quantitative Scores)
550 TOEFL (paper test – this is the University requirement)

Required Materials for a Complete Application:
ApplyTexas online application
Personal Statement
Transcripts
GRE scores
TOEFL scores (if International)
3 Letters of Recommendation
Application Fee
Resume/CV (not required, but recommended)

*The applicant can send all of these materials to the Office of Admissions and they will send them to us. However, the applicant can send the Letters of Recommendation, Personal Statement and Resume directly to us. Please see the “How to Apply” page of our website http://nfsc.tamu.edu/academics/graduate_information/graduate_admissions/index.htm
*Applicants can find instructions for completing the application on the Office of Admissions website http://admissions.tamu.edu

*Information about scholarships, fellowships and other financial aid can be found on the Office of Graduate Studies and Office of Student Financial Aid websites http://ogs.tamu.edu/prospective/financial https://financialaid.tamu.edu

Steps to Complete the Application & Admissions Process

1. Search for Completed Applications
The Graduate Tracking Report from the Office of Admissions lists all the applicants for our program separated by degree type (MS or PhD). This report is generated almost every day. To access this report, you will need a Compass account. You will access Compass and the Graduate Tracking Report from the Howdy portal. (http://howdy.tamu.edu) You must use Internet Explorer or Compass will not work. Log in to Howdy using your Net ID and password and click on the Employee tab. On the right hand side of the screen will be the Compass box. Click on the e-Print Login icon. This will pull up a list of reports. Click on the pdf icon for the Graduate Tracking Report with the latest date. A pdf of the report will open. On the left hand side of the Adobe Acrobat window, there will be an icon of binoculars that is the search function. Click on that and search for FSTC (this is the acronym for our program). There should be one page for MS students and one page for PhD students. All of the applicants will be listed along with their UIN, Application Dates, GPA and scores. A “Y” next to a score tells you that it is an official score. You will know when an application is complete when a date is listed in the Sent Dept column. Once this occurs, you can move to the next step.

2. **Create an Application Cover Page**
   There is a pdf template for the Application Cover Page in the Applications folder of the IFS file. All of the information needed to complete the Application Cover Page can be found on the Graduate Tracking Report. Fill out the form and print it as a pdf with the file name Application Cover Page-last name of applicant. You will need to create a folder under the appropriate semester’s file in the Application-Admissions folder. For example:
   Applications → Fall 2010 → Doe, John → Application Cover Page-Doe

3. **Add the applicant to the Applications Spreadsheet for the appropriate semester.**
   A new spreadsheet will need to be created for each entry semester under the semester’s file.

4. **Download the Application Documents from OARDocs**
   You will need to complete training to attain an OARDocs account. Once you have your account you can log in at http://oardocs.tamu.edu. OARDocs functions are available by clicking the “Documents” icon. The easiest way to find the application documents is to search by the applicant’s UIN. Once the list of documents comes up, Double click to open the application. The next step is printing as a pdf click the printer icon or File>Print> print dialogue comes up Profile does not change, select with annotations click OK. If Adobe PDF is not selected then you must select it. For Print range, select All or select pages with the number of pages inserted Click OK. The folders come up refer to example Applications → Fall 2010 → Doe, John → Change File Name to App click Save. Repeat these steps until you have downloaded all application materials. Once all documents are received, **create a pdf of the entire Application.**
   Adobe Acrobat can combine several pdf files into one document.

   The order of the documents in the application file is as follows:
   
   Application Cover Page  
   Application  
   Personal Statement  
   Resume/CV  
   Letters of Recommendation  
   Transcripts and Other Supporting Documents  

   Save the file as -last name, first name Application

   *Many applicants will mail the letters of recommendation and resume directly to the IFS. The Office of Admissions will also sometimes send you paper copies of these items as well. These items should be scanned, properly named and saved in the applicant’s file. The paper copies should be filed in the file cabinet in a folder with the applicant’s name on it.

5. **If the application is not complete, email the applicant with a list of any documents still**
needed.
(Letters of Recommendation, Resume, etc.)

6. **Send the Application to the Faculty for Review**
The faculty will have three weeks to review the application and notify you if they will accept the applicant. You will need to put this deadline in the email when you send out the application and send a reminder email 1 week before the deadline.

7. **Enter Admissions Decision on OARDocs**
(http://oardocs.tamu.edu)
Deny:
If no response is received by the deadline, the application will be denied because no faculty advisor is available. The Office of Admissions will send the applicant a letter with the decision.
Accept:
If a faculty member notifies you that they will accept a student, the application will be accepted. You will need to ask the faculty member if funding will be provided for the applicant and send the applicant an acceptance letter. Make a copy of the acceptance letter for the applicant’s file. The template for the letter is in the Applications folder. The Office of Admissions will also send the applicant a letter with the decision.

**Confirmation by Chair of IFS:**
Once you have entered the decision on OARDocs, the IFS Chair will need to log in and confirm the decision. Send him a reminder email letting him know that he needs to do this and to notify you when it is done.

8. **Create a File for the New Student**
Create a label for the file folder with the following information fields:
   - Student Name
   - Matriculation Date (Entry Semester)
   - Degree (MS or PhD)
   - UIN
   - Chair of Committee/Faculty Advisor

9. **Place the file in the Accepted Students section of the file cabinet. When the student starts classes, move the file to the Current Students section of the file cabinet**

### 2.4 Fellowships, Scholarships, Assistantships

**Table 2.4 Regents’ Fellowship and Scholarship Summary**

<table>
<thead>
<tr>
<th>Category</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regents’ Fellowships ($12,000 ea)</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Academic Scholarships ($1,000 ea)</td>
<td>9</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Travel Scholarships (~$500 ea)</td>
<td>13</td>
<td>15</td>
<td>18</td>
</tr>
</tbody>
</table>

**2.4.1 Regents’ Graduate Fellowship (Office of Graduate Studies)**

This award is intended to support the recruitment of new students pursuing graduate degrees at Texas A&M University. It provides $12,000 support for 1 year, and it is assumed that full assistantship funding of the student will be covered by the faculty member. Recent allocations from the OGS to the IFS have been $23,000. The IFS intern has allocated an additional $1,000 from operating expenses to make
Food Science and Technology Graduate Program (MS, PhD)

available 2, $12,000 Regents’ Fellowships. Highly qualified graduate applicants that are accepted by the OGS and IFS in the Spring and/or Summer Semesters are encouraged to apply for the Fellowship prior to the Fall Semester. Previous recipients of a Regents’ Fellowship are not eligible to apply. The Executive Committee is responsible for selecting the Regents’ Fellowship and use the following elements in an evaluation rubric to score each candidate: letter of introduction, previous academic accomplishments, GRE and TOEFL test scores, previous awards, listing of highlights and accomplishments, personal statement of professional goals, and complete curriculum vitae. The Regent’s Fellowship form and evaluation criteria can be found in the appended material.

2.4.2 Academic ($1,000 each) and Travel Scholarships (~$500 each)

Academic Scholarships are awarded on a competitive basis by the Scholarship Committee and in turn, these enable a student to be eligible for a non-resident tuition waiver should they not be an in-state resident. Dossier requirements for the Academic Scholarship include an application form, an applicant’s letter of application, recent transcript and complete curriculum vitae (to include career goals and evidence of academic achievement). The scholarship form and evaluation criteria can be found in the appended material.

Travel Scholarships are awarded on a competitive basis and are available to support graduate students making formal presentations at professional conferences. Selection consideration is based on the quality of the abstract submitted to the Scholarship Committee and acceptance of the abstract by the professional society. Funding availability is based on the funds allocated by the EC for graduate student travel. The travel scholarship award application and evaluation criteria can be found in the appended material.

2.4.3 Other Academic Scholarships, Fellowships and Grants

Pathways to the Doctorate Fellowships: (First semester, fall start only fellowship.) Through the Pathways to the Doctorate program, several institutions in the Texas A&M University System are making assistantships or scholarships available to students from within the Texas A&M University System wishing to pursue graduate study at Texas A&M University in College Station. To qualify, students must be from a different institution within the Texas A&M University System.

Texas Aggie Graduate Grant: This is a need-based grant (need is determined by Student Financial Aid) for graduate students who are Texas residents. Each student may receive up to $1,500 per semester, with a maximum of $3,000 per year. The 2009-2010 Application is now located on the Scholarships and Financial Aid website. Turn the completed form in to the Scholarships and Financial Aid office (located in the Pavilion, 2nd floor).

Research and Presentation Grants: The student must be registered for at least 9 hours in fall and spring and at least 6 hours in summer to receive this grant. This program is to support graduate student research or travel by reimbursing students for certain expenses.

Graduate Merit Fellowships/The Association of Former Students Fellowships: This fellowship is by faculty nomination only. (Students do not apply for this fellowship.) First semester, fall start only fellowship. These fellowships are awarded through a University-wide competition. The fellowships are
designed to encourage high-quality applicants to enroll for the first time in graduate programs at Texas A&M University. The departments make nominations to the Office of Graduate Studies (OGS) and these awards are given for one year.

**Graduate Diversity Fellowships:** This fellowship is by faculty nomination only. (Students do not apply for this fellowship.) First semester, fall start only fellowship. This fellowship was established to attract students to Texas A&M who have a proven record of success in a diverse environment. Academic departments nominate prospective graduate students, and students are selected based on overall merit and the nominating department's statement of support. The fellowship provides funding for two years for master's students and three years for PhD students, and includes for each year: $13,000 stipend, $8,000 for tuition and fees, and a departmental assistantship, which pays a minimum of $7,569 per year. With the graduate assistantship, the student has an option for health insurance at a nominal cost.

**National Science Foundation (NSF) Graduate Research Fellowships** (Deadlines are typically early November--check site for details) Individual students apply for these awards directly to NSF. Once awarded, NSF dedicates funds and the money is administered through OGS.

**IBP Pathways to Science Graduate Student Portal:** (Deadline: Depends on specific program) The IBP Pathways to Science program provides a variety of support mechanisms for graduate students in science, technology, engineering, mathematics, or education. Fellowships, NSF research funding, and post doc opportunities are available. For more information, contact Sandra Thomas, Senior Administrator with the Institute for Broadening Participation at stthomas@ibparticipation.org.

### 2.4.4 Assistantship Comparisons

In a recent survey of U.S. Food Science Graduate Program Stipends (Table 2.5), the IFS at Texas A&M University ranked 6th in the level of Ph.D. ($19,640) and M.S. ($18,198) stipend offered out of a total of 37 Universities surveyed. Health insurance, other benefits and tuition of course varies from institution to institution. It is notable that Cornell, Rutgers, Oregon State, Delaware and UC Davis offered higher stipends than Texas A&M University.
### Table 2.5 U.S. Food Science Graduate Program Stipends 2010-2011

Shown are stipend amounts only (not fees, which are generally not covered by any of the programs). Health insurance and other benefits vary among programs and were not included in the stipend amount.

<table>
<thead>
<tr>
<th>University</th>
<th>M.S.</th>
<th>Ph.D.</th>
<th>Tuition Remission</th>
<th>No of Months</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arkansas</td>
<td>13,000</td>
<td>15,000</td>
<td>Yes</td>
<td>12</td>
<td>Tuition paid up to $4,500 (this amount not included in stipend amount)</td>
</tr>
<tr>
<td>Auburn</td>
<td>11,000</td>
<td>11,000</td>
<td>Yes</td>
<td>12</td>
<td>1/4 time + students receive tuition waiver</td>
</tr>
<tr>
<td>BYU</td>
<td>20,325</td>
<td>n/a</td>
<td>No</td>
<td></td>
<td>Entering students receive $20,325 for 3 semesters (9 mo or 1 academic yr). 2nd yr students receive $20,700.</td>
</tr>
<tr>
<td>Cal-Davis</td>
<td>20,532</td>
<td>20,532</td>
<td>Yes</td>
<td>12</td>
<td>Pay $7,200 per year for tuition. Generally 9 month stipends</td>
</tr>
<tr>
<td>Clemson</td>
<td>14,000</td>
<td>18,000</td>
<td>Partial</td>
<td>9</td>
<td>Full in-state tuition for 20 hr/wk apptmnts &amp; 1/2 in-state tuition for 10 hr/wk apptmnts. Tuition premium pd by Grad School for difference of out-of-state tuition for first yr GRA’s.</td>
</tr>
<tr>
<td>Colorado State</td>
<td>12,330</td>
<td>17,280</td>
<td>Yes</td>
<td>9</td>
<td>In addition health insurance ($1,590/12months)</td>
</tr>
<tr>
<td>Cornell</td>
<td>28,533</td>
<td>28,533</td>
<td>Yes</td>
<td>12</td>
<td>Minimum amounts for 12 month appt.</td>
</tr>
<tr>
<td>Delaware</td>
<td>20,667</td>
<td>20,667</td>
<td>Yes</td>
<td>12</td>
<td>MS: min. 12,000; most are 14-15,000. PhD: min. 13,500; most are 16-18,000. Health insurance included in tuition remission.</td>
</tr>
<tr>
<td>Florida</td>
<td>14,500</td>
<td>17,000</td>
<td>Yes</td>
<td>12</td>
<td>Average of two levels, depending on years of experience</td>
</tr>
<tr>
<td>Georgia</td>
<td>17,100</td>
<td>18,500</td>
<td>Yes</td>
<td>12</td>
<td>Tuition &amp; partial fee waiver accompanies a 25% &amp; 50% RA. MS: 50% MS-9mo: 13,840 or 12mo: 18,453. 25% MS-9mo: 6,920 or 12mo: 9,227. PhD: 50% PhD-9mo: 14,117 or 12mo: 18,822. 25% PhD-9mo: 7,058 or 12mo: 9,411. *Average amt</td>
</tr>
<tr>
<td>Hawaii</td>
<td>16,282</td>
<td>n/a</td>
<td>Yes</td>
<td>12</td>
<td>Students receive $12,519.79 months, no MS or PhD distinction</td>
</tr>
<tr>
<td>Illinois</td>
<td>16,147*</td>
<td>16,470*</td>
<td>Yes</td>
<td>9 &amp; 12</td>
<td>Average stipends. Insurance is paid by the PI in addition.</td>
</tr>
<tr>
<td>Idaho</td>
<td>11,664</td>
<td>11,664</td>
<td>Yes</td>
<td>9</td>
<td>Students receive $700 credit per year for health ins. Fees may be payroll deducted throughout semester.</td>
</tr>
<tr>
<td>Iowa State</td>
<td>19,494</td>
<td>19,494</td>
<td>No</td>
<td>12</td>
<td>Average: MS ranges 7,200-13,000 PhD ranges 15,000-18,000 Tuition remission is only 70%.</td>
</tr>
<tr>
<td>Kansas State</td>
<td>15,000</td>
<td>18,000</td>
<td>No</td>
<td>12</td>
<td>Students pay at the in state tuition rate (tuition/fees 6 cr = $1,878). Must take min. 6 cr/sem.</td>
</tr>
<tr>
<td>Kentucky</td>
<td>13,800</td>
<td>15,800</td>
<td>Yes</td>
<td>12</td>
<td>Average stipends. Insurance is paid by the PI in addition.</td>
</tr>
<tr>
<td>LSU</td>
<td>15,500</td>
<td>16,500</td>
<td>Yes</td>
<td>12</td>
<td>Students receive $700 credit per year for health ins. Fees may be payroll deducted throughout semester.</td>
</tr>
<tr>
<td>Maryland</td>
<td>15,800</td>
<td>16,300</td>
<td>No</td>
<td>9</td>
<td>Average: MS ranges 7,200-13,000 PhD ranges 15,000-18,000 Tuition remission is only 70%.</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>16,000</td>
<td>18,000</td>
<td>Yes</td>
<td>12</td>
<td>Average: MS ranges 7,200-13,000 PhD ranges 15,000-18,000 Tuition remission is only 70%.</td>
</tr>
<tr>
<td>Michigan State</td>
<td>16,524</td>
<td>17,020</td>
<td>Yes</td>
<td>12</td>
<td>Average: MS ranges 7,200-13,000 PhD ranges 15,000-18,000 Tuition remission is only 70%.</td>
</tr>
<tr>
<td>Minnesota</td>
<td>18,570</td>
<td>18,570</td>
<td>Yes</td>
<td>12</td>
<td>Average: MS ranges 7,200-13,000 PhD ranges 15,000-18,000 Tuition remission is only 70%.</td>
</tr>
</tbody>
</table>
Food Science and Technology Graduate Program (MS, PhD)

<table>
<thead>
<tr>
<th>State</th>
<th>MS</th>
<th>PhD</th>
<th>Requirements</th>
<th>Stipend Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Missouri</td>
<td>13,368</td>
<td>15,100</td>
<td>Yes</td>
<td>Minimum stipends-can be higher depending on grant funding. These are 50% FTE, also give out 25% FTE stipends w/tuition waiver.</td>
</tr>
<tr>
<td>Nebraska</td>
<td>17,035</td>
<td>18,079</td>
<td>Yes 12</td>
<td>RA’s 12 mo; TA’s 9 mo.</td>
</tr>
<tr>
<td>North Carolina State</td>
<td>16,000</td>
<td>18,000</td>
<td>Yes 12</td>
<td>PhD stipend is an average between pre &amp; post candidacy. Entry level stipends for full-time 0.49 FTE (minimum stipend is 0.2 FTE for tuition remission and health insurance coverage</td>
</tr>
<tr>
<td>Ohio State</td>
<td>18,540</td>
<td>18,888</td>
<td>Yes 12</td>
<td></td>
</tr>
<tr>
<td>Oregon State</td>
<td>19,257</td>
<td>21,227</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Penn State</td>
<td>17,550</td>
<td>18,850</td>
<td>Yes 12</td>
<td>These are minimum stipends-may receive supplemental scholarships. Tuition is paid separately by the Dept at an approximate rate of ~ $24,000 per year</td>
</tr>
<tr>
<td>Purdue</td>
<td>18,000</td>
<td>18,000</td>
<td>Yes 12</td>
<td></td>
</tr>
<tr>
<td>Rutgers</td>
<td>24,396</td>
<td>24,396</td>
<td>Yes 12</td>
<td>MS avg-range of 13,500-16,000. PhD avg-range 13,900-20,000 (student on Fellowship grant money)</td>
</tr>
<tr>
<td>Tennessee</td>
<td>15,500</td>
<td>16,350</td>
<td>Yes 12</td>
<td></td>
</tr>
<tr>
<td>Texas A &amp; M</td>
<td>18,198</td>
<td>19,640</td>
<td>No</td>
<td>MS-$1516/mo 0.5 FTE. PhD-$1640/mo 0.5 FTE. Tuition remission can be awarded out of grants/contracts (if funding agency allows for tuition).</td>
</tr>
<tr>
<td>Texas Tech</td>
<td>15,000</td>
<td>18,000</td>
<td>Yes 12</td>
<td>Include full health insurance-not student insurance-actual health insurance</td>
</tr>
<tr>
<td>Utah State</td>
<td>12,000</td>
<td>15,000</td>
<td>PhD-Yes 12</td>
<td>MS-1st yr out-of-state tuition waivers available-then establish residency. Stipends 12 months- not required to register for summer courses.</td>
</tr>
<tr>
<td>Virginia Tech</td>
<td>13,626</td>
<td>14,058</td>
<td>partial 9</td>
<td>MS: 12mo $16,626 (summer $3,000-one time only) PhD: 12mo $17,058 (summer $3,000-2 times only). Tuition Remission: $4,131 per sem in-state &amp; $7,786 per sem out-of-state if earn stipend/wage of at least $4,000 per academic yr</td>
</tr>
<tr>
<td>Washington State</td>
<td>12,865</td>
<td>13,653</td>
<td>Yes 9</td>
<td>Plus state residency is required after one year. Also offer TA’s the same amount.</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>16506*</td>
<td>16506*</td>
<td>Yes 9</td>
<td>*The $16,506 is academic yr; $20,184 annual stipends are also available. Must carry min. of 8 cr.</td>
</tr>
</tbody>
</table>
2.5 Food Science Graduate Student Association

Brief Overview

The Food Science Graduate Student Association was established in the fall semester of 2008. Originally, the organization was pioneered by a group of graduate students who were interested in establishing a professional network and promoting camaraderie amongst graduate students. After achieving approval as a recognized Texas A&M Student Organization, FSGSA grew to over 25 active members. Now in its third year since conception, the FSGSA still aims to uphold the original principles set forth by its founders. The current objectives of the organization are to:

- Sustain the success achieved by the Food Science Graduate Student Association's initial years
- Establish networking opportunities with industry professionals, faculty, and undergraduate students
- Recruit students to both the field of food science as well as graduate school
- Promote the Texas A&M University Food Science Graduate Program on a local, state, and national level

Mission Statement

The Food Science Graduate Student Association is a diverse community of graduate students committed to foster the professional and personal development and success of its members and enhance the profession of Food Science and Technology through community outreach. Guided by these values, we work in conjunction with faculty, undergraduate students, industry professionals, alumni and our peers to complement our academic experience beyond the classroom and the laboratory.

List of Activities

Fall 2008
- Application for Recognized Student Organization Status Accepted
- Held a Pumpkin Carving Contest
- Held the Second Annual Pie-n-face Fundraiser
- Hosted the Food Science Graduate Student Holiday Party and Gift Exchange
- Participated in the Food Science Club Grad School Panel

Spring 2009
- Participated in The BIG Event
- Organized the Semi-Annual Grand Station Food Science Club/FSGSA Social
- Participated in a Summer Kickball League
- Volunteered at International Association of Food Protection Annual Meeting
- Hosted the Student/Faculty Mixer and BBQ
Food Science and Technology Graduate Program (MS, PhD)

- Held multiple Chick-fil-a Fundraisers
- Organized Graduate Student Tour of the Bluebell Creamery

Fall 2009
- Hosted the Department of Nutrition and Food Science Welcome Back Social
- Volunteered at Family Fun Day
- Participated in the First Annual Nutrition and Food Science Kickball Tournament
- Held a Pumpkin Carving Contest
- Held the Second Annual Pie-n-face Fundraiser
- Hosted Seminar on “Celiac’s Disease and the Challenges of a Gluten-Free Diet”
- Hosted a Seminar Given by Frito-Lay on “Life as a Product Developer”
- Organized the Semi-Annual Grand Station Food Science Club/FSGSA Social
- Held multiple Chick-fil-a Fundraisers
- Hosted the Food Science Student Holiday Party and Gift Exchange
- Participated in the Food Science Club Grad School Panel

Spring 2010
- Participated in The BIG Event
- Held multiple Chick-fil-a Fundraisers
- Organized a Tour of the Research and Development Facilities at Frito-Lay
- Organized a Tour of the Research and Development Facilities at the Dr. Pepper Snapple Group

Current Officers

Chris Duncan – Chief Student Leader
Sara Boswell – Treasurer
Jorge Cardona – Executive Officers of Social and Outreach Events
Keila Perez - Executive Officers of Fundraising
LiYi Yang – Graduate Student Council Liaison
Emily Townsley – Executive Officer of Communications

Front Row (From left to right): Sara Boswell, Keila Perez, LiYi Yang
Back Row (From left to right): Chris Duncan, Emily Townsley, Jorge Cardona
3. VISION AND GOALS

3.1 University’s Strategic Plan

In 1997, Texas A&M embarked upon a comprehensive evaluation and planning program with the aim of securing recognition as a consensus "Top 10" public university by the year 2020 under the direction of then-President, Dr. Ray Bowen. The program known as “Vision 2020 was intended to build upon Texas A&M’s tradition of excellence, while identifying areas requiring improvement and recommending necessary action, without sacrificing the core values upon which the university is solidly founded or its proud and unique heritage. The report, Vision 2020: Creating a Culture of Excellence, sets forth individual recommendations categorized into 12 "imperatives" relating to all aspects of Texas A&M and its relationships with students, faculty, staff, the community and the state, nation and world it proudly serves.

The 12 “imperatives” include:
1. Elevate Our Faculty and Their Teaching, Research, and Scholarship
2. Strengthen Our Graduate Programs
3. Enhance the Undergraduate Academic Experience
4. Build the Letters, Arts, and Sciences Core
5. Build on the Tradition of Professional Education
6. Diversify and Globalize the A&M Community
7. Increase Access to Intellectual Resources
8. Enrich Our Campus
9. Build Community and Metropolitan Connections
10. Demand Enlightened Governance and Leadership
11. Attain Resource Parity with the Best Public Universities
12. Meet Our Commitment to Texas

Former TAMU President Robert Gates who served from August 1, 2002 through December 18, 2006 when he was sworn in as the 22nd Secretary of Defense, embraced Vision 2020 and elected to focus initially on four areas embedded in the original imperatives, plus one new imperative:

- Elevate the faculty (Imperative 1)
- Improve graduate and undergraduate programs (Imperatives 2 and 3)
- Diversity and globalization (Imperative 6)
- Improve space (New Imperative 13)

In association with the planning process initiated by Vision 2020 and planning processes, the IFS has developed the following with regard to our statement of purpose and goals:
3.2 STRATEGIC PLAN
(2009-10)

Interdisciplinary Faculty of Food Science and Technology

3.2.1 Vision:
The Interdisciplinary Graduate Faculty of Food Science (IFS) strives to be the graduate program of choice nationally and internationally for students pursuing an advanced degree in Food Science.

3.2.1 Mission:
This vision will be achieved by:

1. Maintenance of a strong academic curriculum taught by nationally and internationally recognized scholars in a collegial environment that cultivates the development of life-long learning skills.

2. Providing individualized research projects leading to discovery of new knowledge in an intellectual environment that results in innovative technologies and provides sound scientific solutions to improve the quality, nutritional value and safety of foods.

3. Preparing M.S. and Ph.D. graduates to be exceptional scientists, professional technologists and future leaders that pursue excellence in every endeavor.

4. Promoting interdisciplinary faculty collaborations that lead to reliable science-based solutions, meet high priority research needs and enables development of sound food policy and regulations to ensure a safe, abundant food supply that enhances our quality of life.

3.2.2 Goals:

1. Recruit academically exceptional graduate students that contribute excellence in the respective program areas of the faculty

2. Offer graduate courses that foster critical thinking skills and provide the most current information on advanced food science principles, laboratory techniques and emerging technologies

3. Broaden fundamental knowledge of graduate students through active participation in weekly food science seminars
4. Offer students enrichment opportunities by working with other food scientists, regulatory agencies and food companies

5. Provide experiential learning activities for graduate students by encouraging participation in professional meetings, competitive poster/oral presentation competitions and activities of the Food Science Graduate Student Association

6. Facilitate faculty interaction for acquisition of grants, publication of peer-reviewed articles, development of innovative technologies and creation of a collegial environment

7. Provide a venue for interdisciplinary research and international collaboration

**Goal 1**
Recruit academically exceptional graduate students that contribute excellence in the respective program areas of the faculty

**Benchmarks**
- Recruit 2 Regents’ Fellows each year
- Provide 7 Academic Scholarships annually
- Provide 15 Travel Scholarships annually
- 50% (minimum) of the graduate students will present abstracts at professional meetings
- Website will conform to Content Management System criteria of the College and is updated monthly

<table>
<thead>
<tr>
<th>Action Plans/Strategy</th>
<th>Benchmark Assessment</th>
<th>Oversight Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 2 Regents’ Fellowships ($12,000 ea) available to recruit new, high caliber graduate students meeting specified criteria (An assistantship should supplement the Regents’ Fellowship) • $1,000 (7-9) competitive Academic Scholarships are available annually to graduate students • ~$500 (15-20) Travel Scholarships are available annually to students making poster/oral presentations at national professional meetings</td>
<td>• 2 Regents’ Fellowship have been given each year for the last 5 yrs • Academic Scholarships enable students to be eligible for in-state tuition fees (8 Scholarships awarded in 2008-09) • Travel Scholarships off-set cost to participating students at professional meetings and enables representation of IFS at meetings (18, $500 Travel Scholarships awarded in 2008-09) • Website revision/update will be done after collection of information for SACS review</td>
<td>Chair sends our award announcements April/May Scholarship Committee – Reviews and evaluates candidates June/July using approved scoring system. Awards effective on or before beginning of fall semester. Chair validates candidate’s enrollment status.</td>
</tr>
</tbody>
</table>
Goal 2
Offer graduate courses that foster critical thinking skills and provide the most current information on advanced food science principles, laboratory techniques and emerging technologies

**Benchmarks**
- Evaluate graduate curriculum (Curriculum Committee) every 2 years for course modifications, additions or deletions
- Communicate with Department Heads who hold the ad loc of Interdisciplinary Faculty members about graduate course needs
- Encourage faculty to use the Center for Teaching Excellence resources in course development/modification and assessment of learning objectives
- Use student course evaluations to assess achievement of learning objectives to achieve a minimum score of 4.00/5.00 (course assessments are returned to departments, not Interdisciplinary Faculties); use other assessments suggested by the Center of Teaching Excellence

<table>
<thead>
<tr>
<th>Action Plans/ Strategy</th>
<th>Benchmark Assessment</th>
<th>Oversight Responsibilities</th>
</tr>
</thead>
</table>
| • Graduate faculty update and/or develop courses that foster critical thinking skills and provide state of the art information | Graduate courses developed since 2008 –  
• FSTC/NUTR 640 Therapeutic Microbiology (Sturino)  
• FSTC/NUTR 610 Nutritional Pharmacometrics of Food Compounds (Su. Talcott)  
• FSTC/ANSC 687 Sensory Evaluation of Foods of Animal Origin (Miller)  
• New FSTC courses being developed by Drs. Elsa Murano and Russell Cross  
• Student course evaluations – List courses and evaluations | Faculty, Curriculum Committee, Chair |
| • Faculty propose courses – Reviewed by the Curriculum Committee and if acceptable are forwarded to the College and University Curriculum Committees for their review and approval | | |
| • Faculty report course evaluations to the Chair for incorporation into the annual IFS report | | |
Goal 3
Broaden fundamental knowledge of graduate students through active participation in weekly food science seminars

Benchmarks
• Weekly Food Science seminars will be presented during Fall and Spring Semesters
• 25% of the faculty will attend weekly seminars
• 75% of all graduate students will attend weekly seminars
• Recruit one leading academic scientist, corporate director of research and special topic speaker for seminar each semester

<table>
<thead>
<tr>
<th>Action Plans/ Strategy</th>
<th>Benchmark Assessment</th>
<th>Oversight Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Weekly Food Science seminars (1 hr) are held during Fall and Spring Semesters</td>
<td>• Graduate Students enrolled in FSTC 681 gave one presentation during the semester</td>
<td>Seminar Coordinator, Seminar Committee, Faculty, Chair</td>
</tr>
<tr>
<td>• Seminar announcements sent out weekly on IFS listserv to all faculty/students</td>
<td>• All food science graduate students and faculty are encouraged to attend (actual attendance is &lt;25% faculty, ~50% of graduate students)</td>
<td></td>
</tr>
<tr>
<td>• Guest speakers from academia/industry/regulatory agencies, university services will be invited as speakers</td>
<td>• Seminar needs better attendance by faculty and graduate students</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Consider having different faculty members host graduate student speakers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Consider having rotating faculty panel serve as evaluators</td>
<td></td>
</tr>
</tbody>
</table>
Goal 4
Offer students enrichment opportunities by working with other food scientists, regulatory agencies and food companies

Benchmarks
• 50% of students participate in student enrichment activities by working with faculty members (use of equipment, participation in joint projects, etc.) corporate scientists, regulatory agencies or in a setting external to the campus (industry facility)
• Provide internships with food companies to expand learning and placement opportunities

<table>
<thead>
<tr>
<th>Action Plans/Strategy</th>
<th>Benchmark/Assessment</th>
<th>Oversight Responsibilities</th>
</tr>
</thead>
</table>
| • Students are offered enrichment opportunities by some faculty members working with other food scientists, regulatory agencies and commercial associates and through internships | • Project funding may enable students to collect data off-site at commercial facilities or in other scientists laboratories  
• Kellogg Company sponsors 6 mo or 1 yr internships for graduate and undergraduate students (Emily Townsely, M.S.)  
• Number of students in enrichment activities – | Faculty, Chair |
Food Science and Technology Graduate Program (MS, PhD)

Goal 5
Provide experiential learning activities for graduate students by encouraging participation in professional meetings, competitive poster/oral presentation competitions and activities of the Food Science Graduate Student Association

Benchmarks
• 100% of students participate in experiential learning activities such as attendance of a professional meeting within their second year of study
• 75% of students participate in research presentations and/or competitive poster competitions, quiz bowl teams or product development teams annually

<table>
<thead>
<tr>
<th>Action Plans/Strategy</th>
<th>Benchmark Assessment</th>
<th>Oversight Responsibilities</th>
</tr>
</thead>
</table>
| • Provide scholarships to cover travel and attendance costs to professional meetings for experiential learning activities | • Number or percent of graduate students attending professional meetings –
  • Number of posters/presentations made –
  • Number of students receiving awards –
  • Number of quiz bowl participants – | Faculty, Scholarship Committee                            |
Goal 6
Facilitate faculty interaction for acquisition of grants, publication of peer-reviewed articles, development of innovative technologies and creation of a collegial environment

Benchmarks
• Five joint research proposals will be submitted each year among IFS faculty members
• 20% of proposals submitted will be funded
• One peer-reviewed publication from each proposal funded

<table>
<thead>
<tr>
<th>Action Plans/ Strategy</th>
<th>Benchmark Assessment</th>
<th>Oversight Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Send out RFPs for collaborative research projects</td>
<td>• Chair sends out announcements from various funding entities</td>
<td>Chair, College of Agriculture and Life Sciences, Vice President for Research (University)</td>
</tr>
<tr>
<td>• Facilitate interaction among the faculty to enhance</td>
<td>• # Publications –</td>
<td>Faculty</td>
</tr>
<tr>
<td>grant acquisition, develop innovative technologies, apply</td>
<td>• # Total proposals submitted –</td>
<td></td>
</tr>
<tr>
<td>for patents or licensure</td>
<td>• # Joint proposals submitted –</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• # Total grants funded –</td>
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</tr>
<tr>
<td></td>
<td>• # Joint grants funded –</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• # Patents/ licensures –</td>
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</tr>
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Goal 7
Provide a venue for interdisciplinary teaching, research and international collaboration

Benchmarks
• 50% of the faculty will have programs with a national and/or international component
• 10% of the faculty will be involved in team-teaching or serve as guest lecturers in multiple courses

<table>
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<tr>
<th>Action Plans/ Strategy</th>
<th>Benchmark Assessment</th>
<th>Oversight Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Provide a venue for interdisciplinary teaching, research, international collaboration and team teaching (utilize the combined expertise of many in one course)</td>
<td>• # faculty with national international component – • # faculty involved in team-teaching – • Multidisciplinary, multi-college activities – Food Safety Initiative (Dr. Cross)</td>
<td>Faculty, Chair</td>
</tr>
</tbody>
</table>
3.2.3 SWOT ANALYSIS
(2008-09)

STRENGTHS:

• IFS Faculty have unique areas of expertise across a diversity of disciplines

• IFS Faculty are productive in terms of grant acquisition (federal, state, corporate, commodity based), forming corporate research partnerships, publication of scientific manuscripts and generating translational research

• Food Science curriculum allows for learning hands-on practical applications in some pilot plant processing facilities

• Graduate students compete well at professional meetings in poster/oral competitions that brings recognition to the IFS program

• TAMU graduates are sought by corporate employers prior to or at graduation

• IFS provides scholarships and travel awards to attract high caliber graduate students, support travel to professional meetings and ensure that research in their respective laboratories is visible nationally (and internationally)

• IFS graduate students recently (2008-09) formed a Food Science Graduate Student Association (FSGSA) to provide input to the IFS Faculty regarding the graduate program, better communication among graduate students and to foster a collegial environment

• Several IFS Faculty have received awards in recognition of their professional achievements

WEAKNESSES:

• Administrative requirements and reports to measure IFS academic metrics have become more numerous, complex and in some cases the information requested is not available to the Chair of the IFS

• No administrative stipend nor release time from other duties is made available to Interdisciplinary Chairs to compensate for the time and effort required to provide administrative oversight and service to the IFS

• Faculty dispersion across Departments/Colleges and individual commitments hinder the faculty’s ability to meet more frequently and participate in IFS activities, social events and/or sponsored graduate student events

• Recruitment of top students across the U.S. could be enhanced with better website management [Updates of news and events, faculty/students receiving awards, acquisition of significant grants, updates on faculty biographical information, and a more searchable website that provides links to other sites such as Face Book, You Tube, etc.]

Note – Current administrative staff serves two faculties and would need additional assistance to use the Content Management System (CMS) for websites
• A few commodity groups/industry areas are not supported within the discipline (i.e., Dairy Technology)

• A significant number of pilot-plant facilities need renovation and updating of equipment

• There is a need for BL-2 animal and plant food processing facilities for food safety studies

OPPORTUNITIES:

• Joint Food Engineering position to be filled Spring 2010 will provide additional expertise and funding opportunities across NFSC and BAEN Departments

• Addition of new FSTC graduate courses (3 currently being taught, 1-2 under development) will allow for curriculum revision and expansion

• Industry internships and/or partnerships could be expanded as a means of providing graduate student learning experiences and research program support

• Continued involvement and support of the graduate student association from the NFSC Department could provide a “home Department” for graduate students in the IFS program

• Additions of new faculty into the following Departments (Animal Science, Poultry Science, Nutrition and Food Science, Biological and Agricultural Engineering) allows for building stronger interdisciplinary research teams

THREATS:

• Vacancies created by IFS Faculty (ad locked to other departments) who retire or vacate a position may not be replaced with Food Scientists, thus putting the curriculum at risk (essential courses might not be taught)

• Essential courses on transcripts not cross-listed as FSTC courses may reduce visibility/creditability of the discipline for graduates

• Teaching of a FSTC graduate course must be approved by the IFS faculty member’s ad loc Department Head

• Insufficient funding of the IFS graduate program from the College of Agriculture and Life Sciences and/or the Vice President of Research could reduce participation by current IFS faculty members (no incentive to participate)

• Loss of graduate FS graduate program could be devastating to academic and research efforts in Food Science and Technology
4. THE GRADUATE PROGRAM (PH.D)

4.1 Graduate Student Enrollment Profile

The total graduate enrollment as of Spring 2009 was 1 M.Ag., 31 M.S. and 10 Ph.D. candidates (Table 4.1), respectively, dispersed across a variety discipline areas such as Food Chemistry and Biochemistry, Pharmacometrics, Food Engineering, Toxicology, Food Processing Technology, Food Microbiology, Virology, Genetics, Horticultural Science, Plant Science, Animal Science, Poultry Science, Sensory Science, and Animal and Plant Physiology. Of the 42 students, 27 (64.3%) are female and 15 (35.7%) male with an ethnic distribution of 16 (38.1%) white, 5 (11.9%) Hispanic, 2 (4.8%) Asian/Oriental, and 19 (45.2%) Other/International. As of Spring 2010, 1 M.Ag., 12 M.S. and 9 Ph.D. candidates (Table 4.2) have filed degree plans with the Office of Graduate Studies to complete their respective degree program.

As shown in Table 4.1, enrollment has remained relatively consistent over the past 2 to 3 years, but is projected to grow slightly due to the addition of new faculty to various departments in the College of Agriculture and Life Sciences and additional established faculty becoming full members of the IFS (recent additions include Drs. Joe Sturino, Susanne Mertens-Talcott, Joseph Awika, Margaret Hardin, Matthew Taylor, Nancy Turner, Elsa Murano, Russell Cross and Tri Duong).

4.1.1 Recruitment, Admissions, Graduation Rate, Degrees Granted, Placement

Recruitment of internal graduate candidates is primarily driven by individual faculty recruiting students in their area of expertise. Internal candidates are typically identified as undergraduates excelling in key Food Science or related courses, or through students participating in directed studies/research in a faculty member’s laboratory. External candidates from other universities are often recruited at professional society meetings by IFS faculty or come recommended from a colleague’s laboratory. A larger pool of external candidates apply directly to graduate school at Texas A&M University through the Admissions Office and specify an interest in Food Science and Technology on their application form. Each applicant that meets the Office of Graduate Studies minimum requirements is forwarded to the IFS, evaluated by individual IFS faculty and either accepted into the program or rejected if no faculty member accepts the student. Assistantship funding is contingent upon the availability of funds from individual faculty.

The acceptance rate of graduate students into the IFS program over the past 3 years has ranged from 7 to 24% (Table 4.3) depending on the availability of graduate positions within laboratories, and assistantship support from external grants. GRE scores of candidates admitted to the program have increased progressively over the past 3 years indicating an effort by the faculty to recruit students with the potential to excel academically. Corresponding to the increase in GRE scores is an increase in students (admitted) GPRs increasing from 3.42 in 2007 to 3.64 in 2009. The average enrollment over the past five semesters has been 40.8 students per semester while the average time to obtain a Ph.D. degree has been 3.41 years.
### Food Science and Technology Graduate Program (MS, PhD)

#### Table 4.1 Graduate Numbers by Semester

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Graduate Student Enrollment By Classification, Gender and Ethnicity

Food Science and Technology (1)
Texas A&M University
Fall 2007 - Spring 2009

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(1) Includes students from all Colleges.
## Table 4.2 Food Science Majors with Degree Plans Filed (Spring ’10)

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<td>633</td>
</tr>
<tr>
<td>Combined</td>
<td>986</td>
<td>1061</td>
<td>1140</td>
</tr>
<tr>
<td>GPR</td>
<td>3.42</td>
<td>3.38</td>
<td>3.64</td>
</tr>
<tr>
<td>% Graduation Rate (10 Yr. Avg.)</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Average Enrollment (Past 5 Sem)</td>
<td></td>
<td>40.8</td>
<td></td>
</tr>
<tr>
<td>Average Time to PhD Degree (Yr)</td>
<td></td>
<td>3.41</td>
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</tr>
</tbody>
</table>

Over the past 10 years, the IFS has had a 100% graduation rate for those students filing a degree plan. From Spring 2007 to December 2009, the program has granted 23 M.S. and 19 Ph.D. degrees (Table 4.4) with excellent placement of graduates in academic, corporate or government positions. Our former students are dispersed not only nationally, but globally and as a consequence, the Food Science graduate program at Texas A&M University is recognized for its strong international component.
### Table 4.4 FSTC Graduate Students Receiving Degrees (3 yr Summary – 2007-2009)

<table>
<thead>
<tr>
<th>Semester</th>
<th>Student’s Name</th>
<th>Degree Received</th>
<th>Faculty Advisor</th>
<th>Placement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring 2007</td>
<td>Alviola, Juma Novie Ayap</td>
<td>PhD</td>
<td>Ralph Waniska (Rooney)</td>
<td>Texas A&amp;M Univ., Research Associate</td>
</tr>
<tr>
<td></td>
<td>Cuervo Pliego, Mary Pia</td>
<td>MS</td>
<td>Alejandro Castillo</td>
<td>Texas A&amp;M Univ., Ph.D. Candidate</td>
</tr>
<tr>
<td></td>
<td>De La Torre Pineda, Monica</td>
<td>MS</td>
<td>Lloyd Rooney/Mian Riaz</td>
<td>HEB, Research &amp; Develop.</td>
</tr>
<tr>
<td></td>
<td>Hines, Lindsey Renee</td>
<td>MS</td>
<td>Lloyd W. Rooney</td>
<td>St. Joseph Hospital, Bryan, TX</td>
</tr>
<tr>
<td></td>
<td>Moseley, Tiffany Marie</td>
<td>MS</td>
<td>Gary Acuff</td>
<td>Sanford Farms, Bryan, TX</td>
</tr>
<tr>
<td></td>
<td>Widmer, Kenneth Walter</td>
<td>PhD</td>
<td>Suresh Pillai</td>
<td></td>
</tr>
<tr>
<td>Summer 2007</td>
<td>Molina Navas, Veronica Alejandra</td>
<td>MS</td>
<td>Marcos Sanchez-Plata</td>
<td>Consultant, Central America Food Industry</td>
</tr>
<tr>
<td></td>
<td>Quezada Arboleda, Nathalie Del</td>
<td>MS</td>
<td>E. Hernandez/Rooney</td>
<td>Oregon State Univ., Ph.D. Candidate</td>
</tr>
<tr>
<td>Fall 2007</td>
<td>Cabrera Diaz, Elisa</td>
<td>PhD</td>
<td>Gary Acuff</td>
<td>University of Guadalajara, Professor</td>
</tr>
<tr>
<td></td>
<td>Calderon De Zacatares, Vilma</td>
<td>MS</td>
<td>Lloyd W. Rooney</td>
<td>CENTA, El Salvador</td>
</tr>
<tr>
<td></td>
<td>Guajardo Flores, Sara</td>
<td>PhD</td>
<td>Lloyd W. Rooney</td>
<td>ITESM, Teaching/Res. Assoc., Monterey Tec</td>
</tr>
<tr>
<td></td>
<td>Narciso Gaytan, Carlos</td>
<td>PhD</td>
<td>Marcos Sanchez-Plata</td>
<td>Poultry Industry, Mexico</td>
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<tr>
<td></td>
<td>Soni, Kamleshkumar Arvindkumar</td>
<td>PhD</td>
<td>Suresh Pillai</td>
<td></td>
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<tr>
<td>Summer 2008</td>
<td>Benli, Hakan</td>
<td>PhD</td>
<td>Jimmy Keeton</td>
<td>Cukurova University, Turkey, Asst. Prof.</td>
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<tr>
<td></td>
<td>Kim, Yuan Hwan</td>
<td>PhD</td>
<td>Jeffrey W. Savell</td>
<td>Iowa State Univ., Post-doc</td>
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<tr>
<td></td>
<td>Noratto Dongo, Giuliana Doris</td>
<td>PhD</td>
<td>Luis Cisneros-Zevallos</td>
<td>Texas A&amp;M Univ., Res. Scientist</td>
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<tr>
<td></td>
<td>Kebakile, Martin Mosinyi</td>
<td>PhD</td>
<td>JR Taylor/Rooney</td>
<td>National Food Res. Ctr, Kanye, Botswana</td>
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<tr>
<td>Fall 2008</td>
<td>Austin, Dilek</td>
<td>PhD</td>
<td>Lloyd W. Rooney</td>
<td>Looking for Position in NC, husband has position</td>
</tr>
<tr>
<td></td>
<td>Kim, Youngmok</td>
<td>PhD</td>
<td>Stephen T. Talcott</td>
<td>SenSus Flavors, Cincinnati, OH</td>
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<tr>
<td></td>
<td>Gonzalez, Mayra Marquez</td>
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<td>Alejandro Castillo</td>
<td>University of Guadalajara, Professor</td>
</tr>
<tr>
<td></td>
<td>Hinojosa, Ana Paola Cardenas</td>
<td>MS</td>
<td>Lloyd W. Rooney</td>
<td>Texas A&amp;M Univ., M.S. Degree Candidate</td>
</tr>
<tr>
<td>Spring 2009</td>
<td>Neal, Jack Adair, Jr</td>
<td>PhD</td>
<td>Alejandro Castillo</td>
<td>Univ. Houston, Hilton College Asst. Prof.</td>
</tr>
<tr>
<td></td>
<td>Gritsenko, Maria</td>
<td>MS</td>
<td>Lloyd W. Rooney</td>
<td>Kellogg, Internship, Return to Russia</td>
</tr>
<tr>
<td></td>
<td>Morales, Josue</td>
<td>MS</td>
<td>Alejandro Castillo</td>
<td>Univ. Houston, Hilton College of Culinary Arts</td>
</tr>
<tr>
<td></td>
<td>Ribeiro de Barros, Frederico Augusto</td>
<td>MS</td>
<td>Lloyd W. Rooney</td>
<td>Kellogg, Internship, Return to TAMU, Ph.D.</td>
</tr>
<tr>
<td></td>
<td>Njomgmeta, Nenge Lynda</td>
<td>PhD</td>
<td>Lloyd W. Rooney</td>
<td>Kraft Foods, Chicago, IL</td>
</tr>
<tr>
<td>Summer 2009</td>
<td>Muras, Tiffany Marie</td>
<td>MS</td>
<td>Kerri Harris/ Jeff Savell</td>
<td>Seeking Position</td>
</tr>
<tr>
<td></td>
<td>Schmidt, Shannon</td>
<td>MS</td>
<td>Matthew Taylor</td>
<td>Pecan Company, Dallas, TX</td>
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<tr>
<td></td>
<td>Wong, Tsui Yin (Linda)</td>
<td>MS</td>
<td>Marcos Sanchez</td>
<td>Return to Taiwan for employment</td>
</tr>
<tr>
<td>Fall 2009</td>
<td>Brandt, Alex</td>
<td>MS</td>
<td>Matthew Taylor</td>
<td>Colorado State Univ., Ph.D. Candidate</td>
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<tr>
<td>Name</td>
<td>Degree</td>
<td>Advisor</td>
<td>Status</td>
<td></td>
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<td>--------</td>
<td>---------------------</td>
<td>------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Garza, Sonja Yevette</td>
<td>MS</td>
<td>Rhonda Miller</td>
<td>Seeking Position</td>
<td></td>
</tr>
<tr>
<td>Wright, Kyle</td>
<td>MS</td>
<td>Gary Acuff</td>
<td>EcoLab Corporation</td>
<td></td>
</tr>
<tr>
<td>Yang, Liyi</td>
<td>MS</td>
<td>Lloyd W. Rooney</td>
<td>Texas A&amp;M Univ., Ph.D. Degree Candidate</td>
<td></td>
</tr>
<tr>
<td>Spring 2010</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Merrill, Robert Matthew</td>
<td>MS</td>
<td>Wesley Osburn</td>
<td>Culinary Industry</td>
<td></td>
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</table>
4.2 Degree Offerings and Requirements

A complete catalog description of degree requirements for the M.S. and Ph.D. degrees can be found online in the graduate catalog at: http://www.tamu.edu/admissions/catalogs/. The master's and doctoral programs in Food Science and Technology emphasize a comprehensive understanding of the fundamental science (chemistry, biochemistry, physics, microbiology, etc.) and technology (engineering, etc.) of converting animals, plants and their respective products into safe, wholesome foods. Candidates may perform research in the areas of meat/poultry science, cereal science, horticultural science, food chemistry, food engineering, food microbiology, food toxicology, food safety, or nutrient composition.

Master of Agriculture (MAg)
The M.Agr. degree is available for students who want professional, graduate training with a management orientation in the food industry. It is a non-thesis degree, requiring a minimum of 36 semester credit hours, 12 credit hours of which must be taken outside the student's degree option. Degree candidates are required to complete a professional internship that lasts 3-9 months and is designed to develop problem-solving skills through meaningful, applied, practical experience (usually in the food industry). A professional paper must be prepared and defended during the student's final examination.

Master of Science (MS)
Thesis Option - Students must complete a minimum of 32 semester credit hours of approved courses, as well as research for the preparation and defense of a thesis. An acceptable thesis must reflect a comprehensive understanding of the pertinent literature and express in clear and legible English, the problem(s) for study, methodology, significance, and results of the student's original research.
Non-Thesis Option - Students must complete a minimum of 36 semester credit hours of approved courses and a final comprehensive examination. The requirements as to level of courses and examinations are the same as for the Thesis Option Master of Science degree.

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSTC 605</td>
<td>Chemistry of Foods (or equivalent)</td>
<td>3 credits</td>
</tr>
<tr>
<td>FSTC 606</td>
<td>Microbiology of Foods (or equivalent)</td>
<td>3 credits</td>
</tr>
<tr>
<td>FSTC 681</td>
<td>Seminar (or department seminar)</td>
<td>1 credit</td>
</tr>
<tr>
<td>FSTC 685</td>
<td>Directed Studies</td>
<td>will vary</td>
</tr>
<tr>
<td>FSTC 691</td>
<td>Research</td>
<td>will vary</td>
</tr>
<tr>
<td>FSTC 600+</td>
<td>Elective courses**</td>
<td>6 credits</td>
</tr>
<tr>
<td>STAT 600+</td>
<td>Elective course</td>
<td>3 credits</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>32 credits</td>
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</table>

**At least 3 credit hours from coursework outside your area of interest.

MAg degree candidates are required to complete 36 credit hours.
M.S. degree candidates must complete a minimum of 32 hours beyond the baccalaureate degree (including FSTC 685 and FSTC 691 credit hours). Each student will develop a Degree Plan in conjunction with the major professor, specifying the courses that must be taken.

Doctor of Philosophy (PhD)
Studies leading to the Ph.D. degree are designed to give the candidate thorough and comprehensive knowledge of his or her professional field, as well as training in research methods. The criteria for granting the degree shall be the candidate's comprehension of the subject matter and a demonstrated ability to perform independent research. In addition, the candidate must have the ability to express
thoughts clearly, both verbally and in written form. A minimum of 96 semester credit hours beyond the baccalaureate degree or 64 semester credit hours beyond the master’s degree, and a dissertation are part of the minimum requirements for the Ph.D. degree.

**Required Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSTC 605</td>
<td>Chemistry of Foods (or equivalent)</td>
<td>3</td>
</tr>
<tr>
<td>FSTC 606</td>
<td>Microbiology of Foods (or equivalent)</td>
<td>3</td>
</tr>
<tr>
<td>FSTC 681</td>
<td>Seminar (or department seminar)</td>
<td>3</td>
</tr>
<tr>
<td>FSTC 685</td>
<td>Directed Studies</td>
<td>will vary</td>
</tr>
<tr>
<td>FSTC 691</td>
<td>Research</td>
<td>will vary</td>
</tr>
<tr>
<td>FSTC 600+</td>
<td>Elective courses**</td>
<td>12</td>
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<tr>
<td>STAT 600+</td>
<td>Elective course</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>64</td>
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</table>

**At least 3 credit hours from coursework outside your area of interest.**

Ph.D. candidates must complete a total of 64 credit hours beyond the master’s degree or 96 credit hours beyond the baccalaureate degree (including FSTC 685 and FSTC 691 credit hours). Each student will develop a Degree Plan in conjunction with the major professor, specifying the courses that must be taken.

### 4.3 Food Science and Technology Courses

Graduate course offerings (18) in the Food Science and Technology curriculum are briefly described below with a listing of the credit hours and prerequisite courses.

**Food Science and Technology (FSTC)**

**605. Chemistry of Foods. (3-0). Credit 3.** Chemical covalent and noncovalent interactions in food systems; the glass transition and moisture in foods; carbohydrate chemistry; reactions of food lipids; food protein functionality; chemistry of flavor; processing chemistry; food additives; and nutraceutical phytochemicals. Prerequisite: BICH 410 or 603.


**607. Physiology and Biochemistry of Muscle as a Food. (2-2). Credit 3.** Biochemical, histological, anatomical and physical characteristics of muscle cells and factors associated with transformation of muscle cells into meat. Prerequisite: BICH 410 or approval of department head. Cross-listed with ANSC 607.

**611. Poultry Processing and Distribution Technology. (3-2). Credit 4.** Poultry and egg composition, mechanisms of poultry and egg quality preservation, effects of storage environments, time and product treatment; evaluation of commercial methods of product assembly, processing, distribution and quality control; evaluation of physical, microbiological, functional and chemical methods of quality determination. Cross-listed with POSC 611.
619. **Molecular Methods for Microbial Characterization. (2-2). Credit 3.** Underlying principles of molecular methods for microbial detection and characterization in natural and man-made ecosystems; emphasis on method application and data interpretation; emphasis on microbial pathogens and indicator organisms in foods and environment; laboratory covers select protocols. Prerequisites: FSTC 326; AGRO 405; POSC 429; approval of instructor. Cross-listed with AGRO 619, POSC 619, and VTMI 619.

629. **Microbiology of Food Irradiation. (2-2). Credit 3.** The course provides a lecture plus laboratory overview of electron beam and x-ray based food irradiation principles. The objective is to provide students with a working knowledge of using electronic pasteurization as a means of destroying microbial pathogens or retarding microbial spoilage in foods. Cross-listed with POSC 629.

630. **Cereal Grains for Human Food. (3-3). Credit 4.** Fundamental concepts of dry milling, wet milling, oil extraction, baking, malting, brewing, storage, sanitation and quality evaluation and control interrelated with physical and biochemical properties of cereals and their products; use of instruments and techniques to evaluate cereal quality. Prerequisite: Approval of instructor. Cross-listed with AGRO 630.

631. **Food Carbohydrates. (3-0). Credit 3.** Chemistry, structure, functionality and nutritional properties of food carbohydrates; fiber chemistry, functionality and nutritional properties, artificial sweeteners, starch structure and functionality and hydrocolloid functionality. Prerequisite: BICH 410. (Offered in alternate years.)

634. **Oilseed Proteins for Foods. (3-0). Credit 3.** World production, composition, processing technologies, uses of products (oil, meal, protein concentrates and isolates, and texturized products) in feeds and foods; present and potential food applications of oilseed proteins. Prerequisites: CHEM 228 and 317. (Offered in alternate years.)

635. **Oil and Fat Food Products. (3-0). Credit 3.** Composition, properties and reactions; sources, handling and storage of raw materials; extraction refining and bleaching; hydrogenation, deodorization, esterification and interesterification; fractionation; uses in salad oils, shortenings, margarine, bakery products and other foods. Prerequisites: CHEM 228 and 317. (Offered in alternate years.)

647. **Technology of Meat Processing and Distribution. (3-0). Credit 3.** I Quantitative and qualitative characteristics of meat and meat products as related to food technology processing operations; manufacturing, preservation, packaging and merchandising. Cross-listed with ANSC 647.

657. **Hazard Analysis and Critical Control Point System. (3-0). Credit 3.** Examination of the Hazard Analysis and Critical Control Point (HACCP) principles specifically related to meat and poultry; microbiological and process overviews; good manufacturing practices (GMP) and standard operating procedures (SOP) development; team-building and implementation into industry operations. Cross-listed with ANSC 657.

667. **Industrial Processed Meat Operations. (2-2). Credit 3.** Application of scientific principles and business practices to manufactured meat products; interrelationships among marketing, manufacturing, product development, regulatory compliance and quality assurance in commercial processed meat operations. Prerequisite: Approval of instructor. Cross-listed with ANSC 667.

677. **Instrumental Methods in Food Analysis. (2-6). Credit 4.** Technique of chemistry, biochemistry and molecular biology used to analyze food products, operational principles of current instrumentation;
“hands-on” experience with a variety of sample preparation techniques and modern laboratory instruments. Prerequisite: CHEM 316/318 or equivalent. Cross-listed with ANSC 677.

681. Seminar. (1-0). Credit 1. Oral reports and discussions of current research and developments in food technology designed to broaden understanding of problems and to stimulate research.

685. Directed Studies. Credit 1 to 4 each semester. Directed study of selected problems emphasizing recent developments in research techniques.

689. Special Topics in... Credit 1 to 4. Special topics in an identified area of food science and technology. May be repeated for credit.

691. Research. Credit 1 or more each semester. Investigations leading to thesis or dissertation in various areas of food science and technology.

4.3.1 Course Offerings (3-yr Summary)

The Food Science and Technology curricula has expanded over the past 3 years with the addition of 4 new courses (yet to be listed in the new 2010-11 graduate catalog) and 1 under development: FSTC 687/ANSC 687 Sensory Evaluation of Foods (Rhonda Miller), FSTC/ANSC 697 Applied Food Microbiology (Margaret Hardin), FSTC 640/NUTR 640 Therapeutic Microbiology (Joseph Sturino), FSTC 610/NUTR 610 Pharmacometrics of Food Compounds (Susanne Talcott) and FSTC/ANSC 689 Disease Mechanisms of Food-borne Pathogens (Dr. Elsa Murano) (syllabus being considered by the College Graduate Program Committee). These courses have added significant strength to the curriculum, but 3 courses in the catalog (FSTC 634, 635 and 677) that have been offered previously need to be taught to fully complement the curriculum.

Outlined in Table 4.5 is a 3-year summary of the graduate courses taught by IFS faculty. It is noted that some courses (FSTC 634 Oilseed Proteins for Foods, FSTC 635 Oil and Fat Food Products, and FSTC 677 Instrumental Methods) have not been taught in recent years due to the untimely death of a faculty member (Dr. Ralph Waniska), faculty leaving the University to accept new positions (Sanchez-Plata) or faculty moving into administrative positions (Acuff, Carey, Nichols, Keeton). The Graduate Curriculum Committee in the Nutrition and Food Science Department is currently reviewing all NUTR and FSTC graduate courses and will be providing recommendations to the IFS Graduate Curriculum Committee in the near future regarding specific graduate course needs in the curriculum.
<table>
<thead>
<tr>
<th>Semester</th>
<th>FSTC Number</th>
<th>Brief Course Description</th>
<th>Cross Listed</th>
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<th>Instructor</th>
<th>Enrolled</th>
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<td>Industrial Processed Meat Operations</td>
<td>ANSC</td>
<td>3</td>
<td>Keeton</td>
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</tr>
<tr>
<td>Fall 06</td>
<td>657</td>
<td>Hazard Analysis and Critical Control Point System</td>
<td>ANSC</td>
<td>3</td>
<td>Keeton</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>677</td>
<td>Instrumental Methods in Food Analysis</td>
<td>ANSC</td>
<td>4</td>
<td>Keeton</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>647</td>
<td>Technology of Meat Processing and Distribution</td>
<td>ANSC</td>
<td>3</td>
<td>Miller</td>
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<tr>
<td></td>
<td>689</td>
<td>Special Topics in Meat Science Research</td>
<td>Keeton</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>691</td>
<td></td>
<td>Keeton</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spring 07</td>
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<td>Chemistry of Foods</td>
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<td></td>
<td>606</td>
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<tr>
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<td>Research</td>
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<td>Acuff</td>
<td>2</td>
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<td>Sanchez-Plata</td>
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<td>Miller</td>
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<td></td>
<td>691</td>
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<td>Castillo</td>
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<td>Summer 07</td>
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<tr>
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4.3.2 Seminar Series (3-yr Summary)

Professional development of our students through oral presentation of their research projects and defense of their research approach hones their communication and critical thinking skills and is vitally important to their future success. A weekly seminar series is offered each Fall and Spring Semester to enhance these skills as well as provide an opportunity to learn about new and emerging technologies through invited presentations by IFS faculty as well as national and international speakers of prominence from academia, industry and government. The opportunity to meet and interact with leaders in the field of Food Science and Technology is critical to graduate education and essential to developing future career and service opportunities. Examples of the seminar schedules and presentations are given in Table 4.6.

Table 4.6 IFS Seminar Series (3-yr Summary)

<table>
<thead>
<tr>
<th>Semester</th>
<th>Location</th>
<th>Date</th>
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<th>Presentation Title</th>
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<tr>
<td>Fall 2007</td>
<td>440 Heep Center</td>
<td>September 7* (Friday)</td>
<td>Dr. Geraldo Eugenio de França Executive-Director, EMBRAPA Brazil</td>
<td>Bioenergy Research Program in Brazil: Interaction with TAMU</td>
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<td></td>
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<td>September 24</td>
<td>Ms. Cynthia Warren Graduate Research Assistant TAMU Institute for Obesity Research and Program Evaluation</td>
<td>Conducting Research to Increase the Consumption of Whole Grain Foods in Schools</td>
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<td>October 1</td>
<td>Dr. Matthew Taylor Assistant Professor TAMU Meat Science</td>
<td>Encapsulation of Food Antimicrobials</td>
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<td>October 12* (Friday)</td>
<td>Dr. Luis Osorio Director, Food Science Program Zamorano Honduras</td>
<td>Zamorano Food Science Program</td>
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<td>October 22</td>
<td>Ms. Nenge Lynda Njongmeta Graduate Research Assistant TAMU Cereal Quality Lab</td>
<td>Isolation and Evaluation of Stability of 3-Deoxyanthocyanins from Black Sorghum</td>
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<tr>
<td></td>
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<td>October 22</td>
<td>Ms. Mayra Marquez-Gonzalez Graduate Research Assistant TAMU Food Microbiology</td>
<td>Inoculation of Ham During Cooking</td>
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<td></td>
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<td>October 29</td>
<td>Ms. Dilek Austin Graduate Research Assistant TAMU Cereal Quality Lab</td>
<td>Effect of Tannins on Starch Digestibility</td>
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<td></td>
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<td>November 9* (Friday) 3:30 PM</td>
<td>Dr. John Rupnow, PhD Professor Dept. Food Science &amp; Tech, University of Nebraska-Lincoln Executive Committee Member, IFT</td>
<td>Bioterrorism Agents and Their Impact in Food Safety</td>
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<td>Spring 2008</td>
<td>440 Heep Center</td>
<td>February 28 (1 PM)</td>
<td>Dr. Tony Bello Principal Scientist, Kellogg Company</td>
<td>Food Product Development Experiences in the Food Industry</td>
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<td>March 17</td>
<td>Candidate Dr. Tilman Schober Research Chemist, USDA Grain Marketing Manhattan, KS</td>
<td>My Background, and What I Could Bring to Texas A&amp;M</td>
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<td>March 20 (Thursday)</td>
<td>Candidate Dr. Jihong Li Research Associate, Grain Science Dept Kansas State University</td>
<td>Characterization of Starch and Dietary Fiber In Cereal Grains</td>
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<td>Candidate Dr. Joseph Awika Assistant Prof, Food Science Dept</td>
<td>Improving Health Profile of Cereal Products: A Systematic</td>
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<td>Dr. Blaine Jenschke</td>
<td>Lessons Learned from Graduate School</td>
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<td>Ms. Lisbeth Pacheco PhD Candidate &amp; Grad Teaching Assistant TAMU Food Chem</td>
<td>Chemical Composition, Antioxidant Properties, and Thermal Stability of a Phytochemical Enriched Oil from Acai (Euterpe oleracea Mart.)</td>
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<td>Dr. Peter W. Bodnaruk Director, Microbiology &amp; Analytical Chemistry Ecolab, Egan, MN</td>
<td>Pathogen Control Systems</td>
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<td>April 21</td>
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<td>Ms. Mayra Marquez-Gonzalez PhD Student TAMU Food Microbiology</td>
<td>Heat Resistance of Clostridium perfringens Spores as Affected by the Type of Heating Medium</td>
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<td>Ms. Grihalakshmi Kakani Graduate Teaching Assistant TAMU Poultry Science</td>
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<td>Mr. Youngmok Kim Graduate Teaching Assistant &amp; PhD Candidate TAMU Food Chemistry</td>
<td>Antioxidant Phytochemical Stability during Storage of Ready to Drink Green Tea (Camellia sinensis), Yaupon Holly (Ilex vomitoria) and Mamaki (Pipturus albidus).</td>
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**Fall 2008**  

440 Heep Center  

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<td>Ms. Nancy Duran Agriculture and Life Sciences Librarian TAMU Medical Sciences Library</td>
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<td>Dr. Joseph Awika Assistant Professor TAMU Cereal Quality</td>
<td>Getting Into Academia - What You Need to Know</td>
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<td>Ms. Lisbeth Pacheco PhD Candidate, Food Chemistry TAMU Dept of Nutrition &amp; Food Science</td>
<td>In-vitro Absorption and Antiproliferative Activity of Polyphenolic Extracts from Açai (Euterpe oleracea Mart.)</td>
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<td>Ms. Eliana Pinilla Graduate Research Assistant TAMU Cereal Quality</td>
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<td>Ms. Shannon Schmidt Graduate Research Assistant TAMU Food Microbiology</td>
<td>Liposome Encapsulation of Nicin</td>
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<td>Mr. Leo Ojwang Graduate Research Assistant TAMU Cereal Quality</td>
<td>Stability of 3-Deoxyanthocyanins against Sulfite and Ascorbic Acid Bleaching</td>
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<td>Ms. Sara Boswell MS Graduate Student TAMU Cereal Quality</td>
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<td>Dr. Susanne U. Talcott, Assistant Professor TAMU Nutr &amp; Food Science &amp; Vet Med - Physiology &amp; Pharmacology</td>
<td>Health Benefits of Polyphenolics in Tropical and Sub-Tropical Fruits</td>
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<td>Ms. Maria Gritsenko</td>
<td>Whole Grain Flour Tortilla</td>
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<td>Mr. Armando Del Follo</td>
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<td>Enersyst Development Center L.L.C.</td>
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<td>Mr. Chris Duncan</td>
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**Food Science and Technology Graduate Program (MS, PhD)**
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<td>Graduate Student TAMU Microbiology</td>
<td>Survival of Salmonella Strains on the Surface of Jalapenos</td>
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<td>Ms. Sonia Garza</td>
<td>Graduate Research Assistant TAMU Meat Science</td>
<td>Non-meat Ingredients to Improve Functional Properties in PSE pork</td>
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<td>April 20</td>
<td>Ms. Ana G. Ortiz</td>
<td>Graduate Research Assistant TAMU Horticulture</td>
<td>Identification of Tannins from Pecan (Carya illinoinensis Wangen. K. Koch) Kernels by LC-MS</td>
</tr>
<tr>
<td>April 27</td>
<td>Ms. Kakani Grihalakshmi</td>
<td>Graduate Research Assistant TAMU Poultry Science</td>
<td>Chemical Interventions in Poultry Processing - Impact on Resistance of Pathogens</td>
</tr>
<tr>
<td>Fall 2009</td>
<td>Dr. Lisbeth Pacheco</td>
<td>R&amp;D Scientist Frito-Lay, Inc.</td>
<td>Life as a Food Scientist in Product Development</td>
</tr>
<tr>
<td>September 28</td>
<td>Dr. Ruth Schemmer</td>
<td>Career Center Associate Director TAMU Graduate Student Services</td>
<td>Using the Career Center Effectively as a Graduate Student</td>
</tr>
<tr>
<td>October 5</td>
<td>Dr. Joseph Sturino</td>
<td>Assistant Professor Director, Phenomics Facility Core TAMU Dept of Nutrition &amp; Food Science/Intercollegiate Faculty of Genetics</td>
<td>Cellular Phenomics</td>
</tr>
<tr>
<td>October 12</td>
<td>Dr. Syed S.H. Rizvi</td>
<td>Int’l Prof, Food Process Engineering Institute of Food Science, Cornell Univ.</td>
<td>Micronutrients and Bioactives Delivery via Extrusion and Supercritical Fluids</td>
</tr>
<tr>
<td>October 19</td>
<td>Ms. Gabriela Angel Morales</td>
<td>Graduate Research Assistant TAMU Nutrition and Food Science</td>
<td>Protective Effects of Standardized Curcuminoids Extract (Curcuma Longa L.) in Human Umbilical Vein Endothelial Cells (HUVEC)</td>
</tr>
<tr>
<td>October 19</td>
<td>Mr. Tom O. Jondiko</td>
<td>Graduate Assistant - Teaching TAMU Cereal Science</td>
<td>Effect of Genetics on Wheat Flour Tortilla Quality</td>
</tr>
<tr>
<td>October 26</td>
<td>Ms. Ana G. Ortiz Quezada</td>
<td>Graduate Research Assistant TAMU Horticulture Science</td>
<td>Effect of Pecans on Adipogenesis</td>
</tr>
<tr>
<td>October 26</td>
<td>Ms. Emily D. Townsley</td>
<td>Graduate Research Assistant TAMU Food Chemistry</td>
<td>Plum Polyphenolics Decrease Oxidative Stress and Inflammation in Vascular Endothelial Cells</td>
</tr>
<tr>
<td>November 2</td>
<td>Mr. David W. Prince</td>
<td>Graduate Research Assistant TAMU Poultry Science</td>
<td>Occurrence &amp; Characterization of the Bio-Burden in Minimally Processed Ready to Eat Foods in Retail Food Service Establishments</td>
</tr>
<tr>
<td>November 2</td>
<td>Mr. Jorge A. Cardona Ponce</td>
<td>Graduate Research Assistant TAMU Food Chemistry</td>
<td>Enhanced Absorption of Anthocyanins by the Use of Phospholipids and Terpenes</td>
</tr>
<tr>
<td>November 9</td>
<td>Mr. Christopher E. Duncan</td>
<td>Graduate Research Assistant TAMU Food Chemistry</td>
<td>Isolation and Characterization of Phospholipids Naturally Present in Acai Oil</td>
</tr>
<tr>
<td>November 9</td>
<td>Mr. Armando del Follo</td>
<td>Graduate Research Assistant TAMU Nutrition and Food Science</td>
<td>Red Wine Polyphenolics Have Anticancer Effects in Colon Cancer and Target Oncogenic</td>
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<td>November 16</td>
<td></td>
<td></td>
<td>Mr. Muhammad Asif</td>
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<td>TAMU Cereal Science</td>
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<td>November 16</td>
<td></td>
<td></td>
<td>Mr. Daniel A. Jacobo Velazquez</td>
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<td>TAMU Horticulture</td>
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<td>November 16</td>
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<td></td>
<td>Ms. Grihalakshmi Kakani</td>
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<td>TAMU Poultry Science</td>
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<tr>
<td>Spring 2010</td>
<td>April</td>
<td>440 Heep</td>
<td>Ms. Nancy Duran</td>
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<td>1</td>
<td>Center</td>
<td>TAMU Medical Sciences Library</td>
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<tr>
<td>February 8</td>
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<td></td>
<td>Dr. Jimmy T. Keeton</td>
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<tr>
<td>February 15</td>
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<td>Dr. Lloyd W. Rooney</td>
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<td>February 22</td>
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<td></td>
<td>Ms. Mary Pia Cuervo</td>
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<td>TAMU Food Microbiology</td>
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<td>February 22</td>
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<td>Ms. Constance Chiremba</td>
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<tr>
<td>March 1</td>
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<td>Ms. Mariana Villarreal</td>
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<td>TAMU Food Microbiology</td>
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<td>March 1</td>
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<td>Ms. Thelma Calix</td>
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<td>TAMU Food Microbiology</td>
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<tr>
<td>March 22</td>
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<td></td>
<td>Mr. Jorge A. Cardona</td>
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<td></td>
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<td></td>
<td>TAMU Fruit &amp; Veg Chemistry Science</td>
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<tr>
<td>March 22</td>
<td></td>
<td></td>
<td>Ms. Gabriela Angel</td>
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<td></td>
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<td></td>
<td>TAMU Nutrition and Food Science</td>
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<tr>
<td>March 29</td>
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<td></td>
<td>Ms. Katherine McElhany</td>
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<td>Food and Environmental Microbiology</td>
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<tr>
<td>March 29</td>
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<td></td>
<td>Mr. Daniel A. Jacobo-Velázquez</td>
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<td>TAMU Horticulture</td>
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<td>April 5</td>
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<td></td>
<td>Mr. Christopher E. Duncan</td>
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<td>TAMU Food Chemistry</td>
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</tbody>
</table>
4.4 Pilot Plant Facilities for Graduate Research and Training

Rosenthal Meat Science and Technology Center

Square Feet: 28,538
% Utilized: 100
Primary Professor: Savell
Facility Operations: Meat Harvest, Fabrication, Processing, Commercial Plant, State Inspection, Retail Sales

Poultry Processing Center

Square Feet: 4,500
% Utilized: 100
Primary Professor: John Cary (Department Head)
Facility Operations: Poultry Harvest, Fabrication, Processing, Pilot Plant

Electron Beam Food Research Facility/
NASA Retort Operations

Square Feet: 30,000
% Utilized: 70
Primary Professor: Pillai
Facility Operations: Electron Beam Irradiation of Food and Non-Food Products; E-Beam & X-Ray Modes, Commercial Facilities; USDAFSIS Inspection

Cater-Mattil Food Proteins Research & Development Center

Square Feet: 8,000
% Utilized: 100
Primary Professor: Riaz
Facility Operations: Extrusion Processing, Membrane Separations, Spray Drying, Driers, Pilot Plant, Vegetable Oil Processing
**Biological and Agricultural Engineering Laboratory**

Engineering properties lab Room 144
(873 sq ft) and 144A (307 sq ft)

Used for teaching and research; houses instrumentation for measurement of physical and engineering properties of materials including colorimeter, helium pycnometer, 2 Texture Analyzers, 1 Rheometer, several types of viscometers, surface tension meter, autoclaves, gas chromatograph, moisture content meter, water activity meter, thermal properties probe, and frozen/refrigerated space.

Room 222 (320 sq ft): Food Rheology laboratory. It houses a controlled stress Thermo Scientific rheometer, 6 Brookfield viscometers, 1 Brookfield CT3 Texture Analyzer, 1 Yield Stress viscometer.

Room 314 (837 sq ft): Food Engineering research laboratory. It houses fryers (traditional and vacuum), ovens, evaporators, Soxhlet system, balances, autoclaves, incubators, refrigerated space.

Room 316 (850 sq ft): Food Engineering teaching laboratory. Used for teaching. Tray dryer, heat exchanger, freeze dryer, liquid pasteurizer and other unit operations demonstration equipment.

**Price Hobgood Building:** Room 115 (Total square footage is 5131 sq ft. Food is using roughly half or 2500 sq ft of it): Food Safety Engineering (irradiation) laboratory. It houses a low energy (1.35 MeV Van der Graaf) electron beam accelerator, computers, environmental chamber, and bench space for handling of materials.
4.5 Program Assessment and Documentation

Previous assessments of the IFS program have been made through annual reports presented to the Vice President for Research, Office of Graduate Studies and the College of Agriculture and Life Sciences. The elements covered in these reports were documentation of active membership, changes in governance (if any), a SWOT analysis, enrollment trends, graduate course offerings, graduate applications accepted/rejected, graduation rates, faculty CVs outlining publications, grant awards and accomplishments, student placement, a budget overview, and teaching performance metrics derived from student course evaluations and surveys. The 2009-10 Strategic Plan presented in Section 3.2 was the first comprehensive plan developed since the inception of the IFS and defines seven overarching programmatic goals that support the Vision and Mission of the IFS. These goals and their associated benchmarks offer metrics to assess the progress made in achieving each respective goal. These metrics (this information is currently being collected) in part are to be used with other assessment measures of learning outcomes such as Weave-on-Line, student course assessments, and a graduating student survey to gauge the progress made in the IFS program.

Academic program review seeks to improve the quality of academic programs at Texas A&M University and should provide critical information about the quality, size, resources, strengths, weaknesses and the program’s overall contribution to the mission of the University. An evidence-based outcomes assessment should align closely with the goals of Texas A&M University’s Vision 2020 and meet the guidelines established by the Texas Higher Education Coordinating Board (THECB) and the Southern Association of Colleges and Schools (SACS). This self-study is intended to present measurable, transparent evidence that the IFS program is accomplishing its goals, effectively assessing learning outcomes and striving to achieve academic excellence. To provide an outcomes bases assessment of the program, the following key questions should be asked:

- Does the program have ongoing and integrated planning and evaluation processes that assess its degrees and services, that result in continuing improvement, and that demonstrate that the program is effectively accomplishing its mission?

- Has the program identified expected outcomes for its educational programs?

- Does the program have evidence of improvement based upon analysis of results?

Responses that attempt to answer these questions are given below.

4.5.1 Strategic Plan Goals and Benchmarks

Specific benchmarks used to evaluate the goals established by the IFS are identified in the 2009-2010 Strategic Plan. The IFS Executive Committee is responsible for monitoring the progress made during the academic year and requests an annual achievement summary from each faculty member to assist in determining attainment of the established goals. The 2009-2010 Strategic Plan goals and benchmarks are given below with a brief assessment the achievements to date.

Goal 1. Recruit academically exceptional graduate students that contribute excellence in the respective program areas of the faculty
Benchmarks:
- Recruit 2 Regents’ Fellows each year
- Provide 7 Academic Scholarships annually
- Provide 15 Travel Scholarships annually
- 50% (minimum) of the graduate students will present abstracts at professional meetings
- Website will conform to Content Management System criteria of the College and is updated monthly

Assessment:
During the past three years (2007-09), 2 Regents’ Fellowships ($12,000 ea) per year have been awarded to recruit academically superior graduate candidates. Five to 9 Academic Scholarships ($1,000 ea) have been awarded based on merit and 13 to 18 Travel Scholarships (~$500 ea) given to support students giving presentations at national level scientific meetings. The support given in Travel Scholarships represents approximately 30 to 43% of the total number of graduate students at any given time. This is slightly less than the goal established, but over 50% of the graduate students are projected to present posters/abstracts at professional meetings in 2010. GRE scores of candidates admitted to the IFS program have increased progressively over the past 3 years indicating an effort by the faculty to recruit students with the potential to excel academically. Corresponding to the increase in GRE scores is an increase in students (admitted) GPRs increasing from 3.42 in 2007 to 3.64 in 2009.

The information generated from the 2010 self-study will be used to update the IFS website and provide an up-to-date contact point for potential graduate students interested in the Food Science and Technology Graduate program.

Goal 2. Offer graduate courses that foster critical thinking skills and provide the most current information on advanced food science principles, laboratory techniques and emerging technologies

Benchmarks:
- Evaluate graduate curriculum (Curriculum Committee) every 2 years for course modifications, additions or deletions
- Communicate with Department Heads who hold the ad loc of Interdisciplinary Faculty members about graduate course needs
- Encourage faculty to use the Center for Teaching Excellence resources in course development/ modification and assessment of learning objectives
- Use student/course evaluations to assess achievement of learning objectives to achieve a minimum score of 4.00/5.00 (course assessments are returned to departments, not Interdisciplinary Faculties); use other assessments suggested by the Center of Teaching Excellence; use university assessment (Weave-on-Line)

Assessment:
At the request of graduate students and recognition by IFS faculty of the need for more graduate courses, 4 new courses have been developed in the last 3 years and 1 new course is under development. These include: FSTC 687/ANSC 687 Sensory Evaluation of Foods (Rhonda Miller), FSTC/ANSC 697 Applied Food Microbiology (Margaret Hardin), FSTC 640/NUTR 640 Therapeutic Microbiology (Joseph Sturino), FSTC 610/NUTR 610 Pharmacometrics of Food Compounds (Susanne Talcott) and FSTC/ANSC 689 Disease Mechanisms of Food-borne Pathogens (under development by Dr. Elsa Murano). These courses have the support of the department heads to which individual faculty are ad loc’ed.
In the future, Student Evaluation Scores of courses taught by graduate faculty will be requested by the IFS for incorporation into the annual report and used as a subjective assessment of learning outcomes for the graduate curricula. Currently, this information resides in the faculty’s department of record. Other measures to evaluate learning outcomes, critical thinking skills and life-long learning attributes will be assessed with Weave-on-Line.

Goal 3. Broaden fundamental knowledge of graduate students through active participation in weekly food science seminars

Benchmarks:
• Weekly Food Science seminars will be presented each Fall and Spring semester
• 25% of the faculty will attend weekly seminars
• 75% of all graduate students will attend weekly seminars
• Recruit one leading academic scientist, corporate director of research and special topic speaker for seminar each semester

Assessment:
Approximately 40-50% of the graduate students and less than 25% of faculty attend the weekly Food Science seminar on a regular basis each Fall and Spring semester. Part of the lack of attendance is likely attributed to the faculty (and students) being scattered across a very large campus, unlike departments that are typically located in one building or in close proximity to a key building. Suggestions for improving attendance have been to incorporate short faculty meetings/update sessions at the end of a seminar, recognize recent accomplishments of faculty/students, establish a rotating seminar committee (7 members) to critique student presentation and offer refreshments at the seminar.

Goal 4. Offer students enrichment opportunities by working with other food scientists, regulatory agencies and food companies

Benchmarks:
• 50% of students participate in student enrichment activities by working with faculty members (use of equipment, participation in joint projects, etc.) corporate scientists, regulatory agencies or in a setting external to the campus (industry facility)
• Provide internships with food companies to expand learning and placement opportunities

Assessment:
Currently, based on faculty knowledge of student activities between laboratories, it is estimated that over 50% of students utilize resources, analytical equipment, etc. available among the IFS membership. The number of students conducting a portion of their research outside the university in a corporate environment or in government agencies will need to be requested on the annual report forms.

In the past three years, 3 graduate students have served as formal R&D interns with the Kellogg Company (6 mo or 1 yr duration) and Dr Pepper Snapple (3 mo summer). Based on feed-back received from these companies, internship opportunities will continue in the future. Additional companies are being contacted to open up additional internship/placement opportunities.
Food Science and Technology Graduate Program (MS, PhD)

Goal 5. Provide experiential learning activities for graduate students by encouraging participation in professional meetings, competitive poster/oral presentation competitions and activities of the Food Science Graduate Student Association

- 100% of students participate in experiential learning activities such as attendance of a professional meeting within their second year of study
- 75% of students participate in research presentations and/or competitive poster competitions, quiz bowl teams or product development teams annually

Assessment:
Graduate student abstracts/presentations at scientific meetings for FY 07, 08 and 09 totaled 91, 90 and 113, respectively, based on a total of 22 faculty reporting graduate student participation in scientific meetings (Appendix 5.7). This number of presentations should enable almost all students to make a presentation at a professional meeting by their second year of study assuming that their abstract meets the society’s minimum criteria and is accepted for presentation.

Goal 6: Facilitate faculty interaction for acquisition of grants, publication of peer-reviewed articles, development of innovative technologies and creation of a collegial environment

Benchmarks:
- Five joint research proposals will be submitted each year among IFS faculty members
- 20% of proposals submitted will be funded
- One peer-reviewed publication from each proposal funded

Assessment:
Of the 22 faculty reporting grant/contract acquisitions, at least 7 listed Co-PIs from the IFS faculty as participating on some grants (Appendix 5.7 and 5.8). The total number of peer-reviewed publications (books not included) during FY 07, 08 and 09 of the 22 faculty reporting were 93, 113 and 105, respectively, or an average of 4.2, 5.1 and 4.8 publications per faculty per year. This is evidence of a highly productive faculty in terms of acquisition of grant/contracts and publication of results from the support generated. Almost all of the grants have funds that provide for graduate student stipends (insurance, tuition, benefits) and a strong base of funding support for the IFS graduate program.

Goal 7: Provide a venue for interdisciplinary research and international collaboration

Benchmarks:
- 50% of the faculty will have programs with a national and/or international component
- 10% of the faculty will be involved in team-teaching or serve as guest lecturers in multiple courses

Assessment:
As noted in the appended biographical summaries, most of the IFS faculty have been recognized nationally and/or internationally for their research efforts. This also is reflected in the faculty honors and awards listing in the appended materials (Appendix 5.6).
• **Weave-On-Line**
Weave-On-Line is a detailed on-line assessment tool employed by the University to determine the extent to which the goals and objectives established for undergraduate and graduate curricula (in this case the M.S. and Ph.D. programs of the Interdisciplinary Graduate Faculty of Food Science and Technology) are meeting learning outcomes and goals established by the University, and to identify their linkage to the 12 Imperatives of *Vision 2020*. Weave-On-Line objectives for the IFS were redefined in 2009-10 to better evaluate learning outcomes and are listed below. These goals objectives also are tied to the Strategic Plan goals to provide a more comprehensive assessment of the graduate curricula and program.

Measures to assess the goals for 2009-10 listed below have not been implemented by the Curriculum Committee, but will be used to complete the 2009-10 Weave-on-Line report due August 1, 2010.

4.5.2 **Weave-on-Line Goals and Objectives (2009-10 IFS)**

**Program Mission/Purpose**
To lead in the discovery and dissemination of new Food Science knowledge through education and training of graduate students, understanding the operational mechanisms of biological systems, development of innovative technologies, and formation of strategic alliances that provide high quality foods, promote health and enhance the quality of life for Texans and others over the world.

**Goals**
1. Offer superior academic programs and curricula that are relevant and effective for training M.S. and Ph.D. graduate students in the discipline of Food Science.

2. Recruit academically exceptional and diverse graduate candidates into the IFS program to maintain national prominence.

3. Maintain a strong, nationally and internationally recognized graduate research program through presentation of abstracts at national meetings, participation in oral poster competitions and encouraging graduate student participation in national societies.

4. Prepare graduates to be exceptional scientists, professional technologists and future leaders by providing experiential learning opportunities, advanced research training and promoting independent thought.

**Outcomes/Objectives**
Goal 1. Offer superior academic programs and curricula that are relevant and effective for training M.S. and Ph.D. graduate students in the discipline of Food Science.

**G 1 Outcomes:**
• 90% of the graduates will agree that the graduate curriculum provided a sound technical knowledge base, developed critical thinking skills and prepared them for future careers as food scientists/technologists
• 90% of graduates will agree that curriculum provided exceptional oral and written communication skills
• 85% of graduates will agree that faculty teach at a level to develop critical thinking skills and expand their technical knowledge base
• 95% of Ph.D. candidates will pass their preliminary exams on the first try

**Measures G 1:**
• Graduating Survey (TAMU), College Data, Embedded Test Question

Goal 2. Recruit academically exceptional and diverse graduate candidates into the IFS program to maintain national prominence.

**G 2 Outcomes:**
• 80% of accepted graduate applicants will have a GRE combined score of 1100
• 40% of graduates will be ethnically diverse
• 90% of graduates accepted will average a “B” or better in core science courses
• 90% of graduates accepted will average a “B” or better in Food Science courses

**Measures G 2:**
• Transcript Assessment (Rubric), IFS Data Base

Goal 3. Maintain a strong, nationally and internationally recognized graduate research program through presentation of abstracts at national meetings, participation in oral poster competitions and encouraging graduate student participation in national societies.

**G 3 Outcomes:**
• 75% of students will participate in research presentations, competitive poster competitions and other activities at professional meetings
• 90% of graduate research projects will result in a published peer-reviewed journal article with the graduate student as co-author
• 40% of graduate students will be Ph.D. candidates
• 50% of students will participate in experiential learning activities and enrichment activities within their second year of study
• 90% of graduates will agree that their participation in graduate research activities was a strength of the program

**Measures G 3:**
• IFS Data Base, Graduating Survey (TAMU)

Goal 4. Prepare graduates to be exceptional scientists, professional technologists and future leaders by providing experiential learning opportunities, advanced research training and promoting independent thought.

**G 4 Outcomes:**
• 80% of graduates will agree that the graduate program adequately prepared them to be exceptional scientists, professional technologists and future leaders by providing experiential learning opportunities, advanced research training and promoting independent thought
• 80% of employers will agree that the graduate program adequately prepared TAMU graduates to be exceptional scientists, professional technologists and future leaders by providing experiential learning opportunities, advanced research training and promoting independent thought
• 80% of graduates will agree that the graduate program prepared them with adequate leadership skills and the ability to work in teams
• 95% of graduates will be placed in key career positions at graduation

**Measures G 4:**
Graduating Survey (TAMU), Employee Survey, IFS Data

### 4.5.3 Student Evaluation of Courses and Instructors

At the end of each semester, students are given the opportunity to evaluate each graduate course and instructor. Scantron forms are distributed to the class with the following statements (listed below) and the course and instructor evaluated on a 0-5.00 scale with 0 being lowest and 5 being highest. Anonymous student comments and critique of each course/instructor/Teaching Assistant are encouraged and written on the back of the Scantron evaluation forms. The evaluations are collected by a student in the class, secured in a sealed envelope and sent directly to a designated staff person in the faculty member’s department of record. The forms are sent to the University Measurement and Research Services, scanned and a statistical report generated giving mean responses to each question and an overall mean for comparison of student responses to other courses in the department. The statistical report and the forms with student comments on the back are then returned to the department and faculty member for their consideration in making course adjustments. Student course evaluations reside with the department of record of the respective faculty member and may be included in the annual Faculty Achievement reports prepared for each faculty member’s annual evaluation.

**Statements on Student Evaluation Scantron Forms (0 – Lowest Rating, 5 – Highest Rating)**

1. Course objectives were clearly identified and communicated
2. Assigned work was reasonable for the credit hours received
3. The instructor treated students with respect
4. The instructor taught the course effectively
5. Procedures for determining course grades were appropriate
6. As a result of taking this course, my knowledge of the subject matter was increased
7. I would recommend this instructor to other students
8. The instructor was enthusiastic about the subject matter
9. The instructor had a thorough knowledge of the subject matter
10. The instructor maintained a positive atmosphere in the class
11. The instructor was well-prepared for each class
12. The instructor seemed to care whether the students learned
13. The instructor was receptive and responsive to questions and opinions of others
14. Graded work (exams, papers, projects, etc.) contributed in a positive way to the learning experience
15. In comparison to other courses, I learned a great deal in this course
16. Overall, this was a good course
17. Overall, this was a good instructor
18. On the reverse side, discuss the strength and recommendations for improvements for course and instructor
4.5.4 Graduating Student Survey from Measurement and Research Services (MARS)

From Mr. Mark Troy (Associate Director MARS) – Texas A&M University
A graduating student survey (seniors) has been conducted each semester for many years by Texas A&M University, but graduate students have been included in the survey only since Fall of 2007. MARS initially began to survey a population of graduating graduate students without regard to College or major, thus, Food Science graduate students could not be identified to evaluate their responses and provide a program assessment from the student’s viewpoint. In Fall 2009, the survey was changed to gather graduate student information specific to colleges and majors. However, only two Food Science graduate students graduating were available to respond to the survey, which would not be representative of the graduate population in Food Science. In the future, securing survey information conducted over the entire academic year should provide a means of assessing the Food Science curricula’s contribution to learning outcomes, expansion of knowledge and development of critical thinking skills. The IFS plans to utilize this survey in the future as one of the measures to assess curricula effectiveness in providing a sound knowledge base, meeting learning objectives in courses and developing critical thinking skills for life-long learning. An additional survey designed by the IFS (i.e. Monkey Survey) may be considered should the University survey not provide adequate assessment of specific learning outcomes for the curricula.

4.5.5 Changes Made Since the Last Review

What was done to address the suggestions made in the last review?

The last IFS program review was conducted in early 2002 prior to the formation of the Department of Nutrition and Food Science in January 2005. There was much discussion about the possible formation of a new department and how that might affect the IFS and its faculty. The following weaknesses in the program that were identified at that time were:

**Lack of Administrative Support - Secretarial**

With the formation of the Department of Nutrition and Food Science, Dr. Gene Nelson, Executive Associate Dean, provided an Administrative Assistant to support both the Interdisciplinary Graduate Faculties of Nutrition and Food Science, respectively. Ms. Audra Tackitt has served in this role since January 2009 and has been a tremendous asset to the faculties. She has increased the efficiency of handling and processing applicant reviews, answering questions from potential graduate candidates, providing support to the Chair and Executive Committee, allowing better management of budgets, and providing program support for other activities (seminars, conferences, socials, annual meetings, etc.). This position has increased the IFS faculty efficiency and smoothed the transition to a new admissions system (from SIMS to COMPASS). However, the demands of two faculties at times can be excessive.

**Deficiencies in Food Chemistry and Related Sciences – No Food Chemist**

With the formation of the Department of Nutrition and Food Science, Dr. Steve Talcott was hired specifically as a Food Chemist and has taken over responsibilities for teaching most of the undergraduate and graduate level Food Science chemistry courses. This has met a real need since the graduate level Food Chemistry course (FSTC 605) was previously team-taught by 6-8 faculty with some chemistry expertise, but limited to specific commodity areas. Additional faculty with chemistry
expertise, Drs. Susanne Talcott and Joseph Awika, have been hired in the past 2-3 years and as a consequence, the IFS now has expanded its chemistry options to include phytochemicals, pharmocometrics and cereal chemistry.

**Dispersed Facilities and Personnel – Improve Communications**
Even though some new faculty have been recruited into the Department of Nutrition and Food Science, at the formation of the Department many Food Scientists chose to remain in their department of record and continue to teach undergraduate and graduate level cross-listed Food Science courses within their respective department. This arrangement has worked well, but does not foster the degree of communication needed to effectively coordinate course content and enhancement of the curriculum. The faculty continue to remain dispersed making group meetings more difficult and the demands on faculty time by individual departments also decreases the time to participate actively in IFS activities. This need remains and may be more problematic to solve.

**Graduate Recruitment to Increase Percentage of Ph.D. Students – Higher Percentage**
The percentage of Ph.D. students has remained rather constant up to late 2008 when a decline in total student numbers was noted as research funding became more competitive and corporate initiatives were put on hold. As a consequence, the total number of students has declined and proportionately more for those students pursuing a Ph.D. Some M.S. students may have chosen not to pursue a Ph.D. because of the economic climate and the need to acquire a job rather than pursue another degree.

**Means of Program Assessment – Needs a Means of Program Assessment**
Beginning in 2008-09, the University implemented a campus wide undergraduate curriculum assessment program named Weave-on-Line. This program was to be used in concert with department and interdisciplinary faculty strategic plans to evaluate learning outcomes from each curricula, meet the 12 imperatives of Vision 2020 and enable the development of strategies to strengthen undergraduate and graduate programs. Since the initiation of Weave-on-Line in 2008-09, the IFS has completed the first steps to initiate an assessment program for the IFS.

**Curriculum-Teaching Support**
Since the formation of the Department of Nutrition and Food Science in 2005, several faculty (new, replacements or returning) have joined the IFS as full members. These include: Drs. Joseph Awika (SCSC/NFSC), Russell Cross (ANSC), Tri Duong (POSC), Margaret Hardin (ANSC), Kerri Harris (ANSC) Elsa Muano (NFSC), Peter Murano (NFSC), Joseph Sturino (NFSC), Steve Talcott (NFSC), Susanne Talcott (NFSC), Matthew Taylor (ANSC) and Nancy Turner (NFSC). These faculty have developed new courses, are teaching existing courses not taught for some time and contributing to a substantial increase in the amount of research effort by the faculty.

4.5.6 IFS Needs Assessment

- An administrative stipend ($300/mo has been suggested) and some release time from normal duties should be given to the interdisciplinary chair to compensate for the time and effort required to administer the IFS program

- Increased support for the Administrative Assistant position (currently handling two interdisciplinary faculties) is needed to provide for a cost of living and/or a merit raise without reducing the total
allocation to the IFS operating budget (a 3% annual increase in the Administrative Assistant salary allocation is suggested)

- Additional funds (for graduate student recruitment, graduate fellowships and academic scholarships to increase program excellence) are needed to bring in the top graduate Food Science candidates annually. This would have high impact for enhancing the quality of Food Science research programs and attracting other top students.

- Support for a stronger graduate student seminar series is needed to bring in 1 or 2 nationally or internationally prominent speakers ($5,000 per semester is suggested) for students and faculty to keep abreast of current and emerging areas of research in Food Science and Technology. This would increase faculty attendance and bring prominent visibility of the TAMU graduate program.

- Facilities renovation, upgrade of pilot plants and additional classroom space are needed for the entire College and University.

- Subjective/ objective assessment tools suitable for interdisciplinary faculties to measure curriculum/ program effectiveness (Employer Survey, Former Student Survey) are needed.
BY-LAWS

of the

FACULTY OF FOOD SCIENCE AND TECHNOLOGY

Texas A&M University

May 25, 1990

Revised April, 2009
BY-LAWS

of the

FACULTY OF FOOD SCIENCE AND TECHNOLOGY

Article I.

Purpose and Intent

The interdepartmental, intercollegiate Faculty of Food Science and Technology (the Faculty) shall promote and administer graduate programs in the field of Food Science and Technology in conformance with the rules of Texas A&M University. The Faculty shall coordinate the graduate programs and review the requirements of admission, preparation, and training of candidates for the Master of Agriculture, Master of Science, and Doctor of Philosophy degrees in Food Science and Technology. The Faculty also shall promote and facilitate communication among food scientists and technologists and provide for continued development of the discipline. It shall arrange for periodic assembly of the Faculty and their students and provide a forum for them and for others with intellectual interests in Food Science and Technology.

Food Science and Technology is defined as the application of science and engineering to the manufacturing, processing, packaging, distribution, preparation and utilization of foods. The organization and operational characteristics of the Faculty are intended to be broad enough to permit consideration of all academic aspects of Food Science and Technology and all other matters affecting the position and progress of the discipline at Texas A&M University.

Article II.

Status of Faculty

In addition to departmental status, the membership shall be identified as members of the Faculty and shall be eligible to teach courses and, if a member of the Graduate Faculty,
direct research of candidates for degrees in programs in Food Science and Technology. Full members of the Faculty with the rank of Professor will, through a committee vote, provide recommendations to the Chair regarding the granting of tenure and/or promotion.

**Article III.**

**Membership**

A. A full member of the Faculty of Texas A&M University who is a member of the Graduate Faculty and is qualified to direct the research of candidates for M.Agr., M.S., and Ph.D. degrees in Food Science and Technology is eligible for full membership. The Faculty should consist of tenured, tenure-track or Graduate faculty members who, within the last three years, have taught food science courses, have administrative responsibilities for the graduate Food Science Program, or have served on committee(s) for graduate student(s) in Food Science and Technology. Evidence of qualification may also include publication in refereed journals within the last three years where review is provided by food scientists and technologists or authorship of textbooks and other evidence of scholarship.

B. Nomination and election to membership.

1. Following adoption and approval of these By-Laws, nominations for additional membership may be made by any member of the Faculty and shall be made in writing to the Chair of the Executive Committee.

2. The Executive Committee shall (1) identify potential members and facilitate their participation in Faculty functions, (2) evaluate credentials of potential members to the Faculty and determine method of voting, (3) update the Faculty Research Directory and the Membership Roster each fall semester, and (4) review scholarly interests of membership annually.
3. The Chair of the Faculty shall present the names of nominees for membership at the annual meeting or may be submitted by the Chair to the Faculty through electronic communication for consideration at any time. Membership shall be conferred by a majority vote of those members present at the meeting or by majority of members when electronic voting is used.

4. The term of membership in the Faculty shall be three years, with automatic reappointment to the Faculty upon presentation of eligibility according to Article III.A. Failure to provide proof of eligibility shall result in removal from membership in the Faculty by the Executive Committee within 6 months after membership term expiration.

C. Associate Membership

Faculty who do not qualify for full membership under Article III.A., but have temporary academic or postdoctoral appointments to Texas A&M University or the Graduate Faculty and are qualified to conduct research in Food Science, are eligible for associate membership. Associate members have all the privileges of full members except the right to vote in Faculty matters. Associate membership is granted by the Executive Committee of the Faculty. Terms of Associate membership shall be three years, with automatic reappointment to Associate membership upon presentation of eligibility as defined in Article III.c.

D. Adjunct Membership

Individuals who do not qualify for full or associate membership under Article III.A., but have demonstrated scholarly activity in Food Science, are eligible for adjunct membership. Adjunct members may teach graduate Food Science classes and serve on graduate advisory committees and do not have the right to vote in Faculty matters. An
adjunct member is not allowed to chair or co-chair an advisory committee. Adjunct membership is granted by the Executive Committee of the Faculty. Terms of Adjunct membership shall be three years, with automatic reappointment to Adjunct membership upon presentation of eligibility as defined in Article III.b.

Article IV.

Executive Committee

A. The Executive Committee shall be composed of the Chair (non-voting) and five members of the Faculty. No more than two of the committee members shall represent the same academic department. The Chair and members of the Executive Committee shall be elected by members of the Faculty. The Executive Committee shall administer the functions of the Faculty, including appointing committee members. A quorum shall be three of five members.

B. The term of office for the Chair and the five Executive Committee members shall be three years. Election of at least one member of the Executive Committee will be held annually, so that the terms of the Executive Committee members will overlap. The Chair is eligible for re-election to a consecutive term and can be elected to additional terms if the new term does not constitute three consecutive terms. Executive Committee members are not eligible for re-election to their position unless they were appointed to complete a partial term. Any current member of the Executive Committee is eligible for election to the position of Chair.

C. The Executive Committee shall fill by appointment any vacancies that may occur among its elected members during the year. All appointed positions will be declared open at the time of the next annual election.
D. The Chair of the Executive Committee shall preside over meetings of the Executive Committee and Faculty. The Chair will serve as the liaison with the Head of the lead department and other administrative officers. The Chair and the Academic Department Head in which the student resides will sign all degree programs, petitions, thesis and dissertations proposals, and theses and dissertations of students in Food Science and Technology. The Chair will file a copy of all degree programs and petitions.

E. The Vice-Chair shall be elected by the Executive Committee and serve as Secretary of the Faculty, prepare and distribute minutes of the Faculty and Executive Committee meetings to the general membership, and maintain other appropriate records of Faculty activities. The Vice-Chair shall also preside over the Faculty and serve as Chair pro tem of the Executive Committee in the absence of, or when requested by, the Chair.

Article V.

Election to the Executive Committee

A. A Nomination and Election Committee composed of three persons from the general membership, excluding members of the Executive Committee, shall be appointed by the Executive Committee at least one month prior to the annual meeting.

B. The Nomination and Election Committee shall recommend two candidates for each vacant position on the Executive Committee and allow space for write-in candidates on the ballot.

C. The Nomination and Election Committee shall conduct the election and report the results to the membership.

D. Elections shall be conducted by mail ballot (e-mail is acceptable) to be distributed before the annual meeting. Each member shall vote for no more candidates than the number of positions to be filled. Those persons receiving the most votes, with the
exceptions noted in Article IV of the By-Laws, shall be declared elected. Election results shall be announced at the annual meeting and elected members shall assume their duties at the end of the annual meeting.

Article VI.

Functions of the Executive Committee

A. The principal functions of the Executive Committee shall be:

1. Determine and implement policy for the good of the Faculty and represent the interests of the Faculty to various University and other agencies.

2. Review graduate courses and programs in Food Science and Technology with the Faculty and make recommendations for changes and new courses as appropriate, with the aim of insuring uniform excellence and cooperation in the Texas A&M University Food Science and Technology Program.

3. Recruit, receive, and process applicants for graduate study in Food Science and Technology.

4. In consultation with the Faculty and departments concerned, recommend course offerings and class schedules in Food Science and Technology courses.

5. Receive and rule on the admissibility of nominations for membership and reappointments in the Faculty of Food Science and Technology.

6. In consultation with the Faculty and concerned departments, advise on matters of new food science and technology faculty, recruitment, selection and hiring.

7. Develop and publish a Program Description and Faculty List which will describe the detailed information on requirements for admission, selection of graduate advisor, degree requirements, examinations, and other information necessary for the program.
8. Recommend budgeting for teaching functions in Food Science and Technology, work closely with Heads of Departments to secure GAT, GANT and GAR support for students in the discipline, develop a selection process for awarding academic awards, GATs and GANTs to graduate students, and provide recommendations to Heads of Departments in which members of the Faculty reside.

9. Conduct all additional business deemed necessary for the proper functioning of the Faculty.

B. Additional procedures of administrative nature which pertain to graduate degree programs may be administered through the appropriate channels of the administrative department of the student's major professor.

Article VII.

Meetings

A. The annual meeting of the Faculty of Food Science and Technology shall be held during the first two weeks of the month of April each year. A quorum shall be 25% of the Faculty. Items for the agenda must be submitted in writing to the Executive Committee two weeks prior to the annual meeting.

B. Special meetings of the Faculty of Food Science and Technology may be held at the call of the Executive Committee or by petition to the Executive Committee by at least five members of the Faculty.

C. A regular meeting of the Executive Committee shall be held each fall and spring semester. Other meetings of the Executive Committee may be held as frequently and for such purposes as are deemed desirable by the Executive Committee.
D. The minutes of each Annual and Executive Committee meeting shall be approved by the Executive Committee and distributed to all members of the Faculty and their department heads within 15 days after the meeting.

E. At Executive Committee and Faculty meetings, Robert's Rules of Order shall be followed in matters of parliamentary procedure.

Article VIII.

Standing Committees

A. Annual appointment of committee membership (except in Article VIII.C. and D.) will be for service from September 1 through August 31.

B. Nomination and Election Committee. See Article V, Sections A, B, and C.

C. Graduate Programs Committee

This committee shall consist of three members appointed for staggered three year appointments. The committee shall facilitate the processing of applications of prospective candidates through Departmental review and University and Graduate Studies Office notification and shall monitor the progress and status of applicants and current students. The committee will develop literature which publicizes the Food Science and Technology Program, including the list of faculty and a brief description of their research. The committee shall organize recruitment at professional meetings, respond to inquiries from potential students, maintain a file of all current applicants and facilitate equitable access to applicants and their files for all members of the Faculty.

D. Curriculum Committee.

This committee will consist of three members and its principal functions shall be to review and advise the Executive Committee on newly-proposed courses and to
periodically review existing graduate and undergraduate course offerings in Food Science and Technology.

E. Seminar Committee.

This committee shall consist of three members. It shall arrange for speakers and handle all necessary arrangements for and encourage the regular presentation of seminars on topics of interest to the Faculty.

F. Tenure and Promotion Committee.

This committee shall consist of all full members of the Faculty who are Professors. The committee shall review Tenure and Promotion packages for full members and provide in writing to the Chair of the Faculty an evaluation for submission to the Dean of the appropriate College for inclusion in the Tenure and Promotion package.

G. Scholarship and Travel Award Committee.

This committee shall consist of four members, a Chair and three members from general membership, appointed by the Executive Committee. The principal function shall be to request applications from currently enrolled Food Science and Technology graduate students for selection of either a Faculty Scholarship or Travel Award. The number and monetary amount of awards will be determined by the committee with approval of the Executive Committee, based on Faculty resources. Scholarship awards shall be evaluated and allocated based on academic performance and need. Travel Awards shall be awarded once per year and graduate students shall receive only one award per year. Travel Awards shall be provided to graduate students who are presenting Food Science and Technology research at a recognized professional meeting.

Article IX.

Other Committees.
A. Other committees may be created by action of the Faculty or the Executive Committee (e.g. an awards committee).

Article X.

Student Participation

A. Suggestions for changes in Curriculum, Program, Seminar, Admissions, or items of similar interest to students may be submitted in writing at any time by any registered graduate student to the Executive Committee.

Article XI.

Lead Department

In accordance with provisions of the University for interdepartmental faculties, a lead department for the Faculty will be designated to manage administrative support of the Faculty. Recommendations regarding the selection of the lead department will be made by the Faculty through the Executive Committee to the dean of the college of the lead department and the Provost and Vice President for Academic Affairs. (Note: The lead department is currently the Department of Nutrition and Food Science.)

Functions of the Lead Department will be to provide: 1) business administrative support for accounting; 2) staff support for maintaining graduate student records, graduate applications and other related support functions; and 3) assure that tracking of graduate students and courses taught are credited to the faculty members department of record. The lead department does not have access to Faculty funds, does not have input into courses offered by the Faculty, does not have input or selective input into membership or any function of the Faculty.

Article XII.

Amendments
Suggestions for amendments to the By-Laws may be submitted in writing at any time by any member of the Faculty to the Executive Committee. The Executive Committee will schedule discussion by the Faculty of any such amendments at its next scheduled annual meeting, and submit such suggestions for mail ballot. All amendments to the By-Laws must be approved by at least two-thirds of the votes cast by the Faculty via a mail or e-mail ballot.
Appendix A.

Membership

Charter members. The charter members of the Faculty are:

Dr. G.R. Acuff, Animal Science
Dr. E.E. Burns, Horticulture
Dr. J.B. Carey, Poultry Science
*Dr. Z.L. Carpenter, Animal Science
Dr. A.B. Childers, Veterinary Public Health
Dr. H.R. Cross, Animal Science
Dr. J.H. Denton, Poultry Science
Dr. C.W. Dill, Animal Science
Dr. C.R. Engler, Agricultural Engineering
Dr. A. Garcia, III, Agricultural Engineering
Dr. F.A. Gardner, Poultry Science
Dr. S.W. Gyeszly, Mechanical Engineering
Dr. N.D. Heidelbaugh, Veterinary Public Health
Dr. J.T. Keeton, Animal Science
Dr. K.S. Kubena, Animal Science
Dr. O.R. Kunze, Agricultural Engineering
Dr. J.R. Lupton, Animal Science
*Dr. E.W. Lusas, Soil and Crop Sciences
Dr. R.K. Miller, Animal Science
Dr. J.P. Nichols, Agricultural Economics
Dr. T.D. Phillips, Veterinary Public Health
Dr. K.C. Rhee, Soil and Crop Sciences
Dr. K.S. Rhee, Animal Science
Dr. R.L. Richter, Animal Science
Dr. L.W. Rooney, Soil and Crop Sciences
Dr. L.H. Russell, Veterinary Public Health
Dr. A.R. Sams, Poultry Science
Dr. J.W. Savell, Animal Science
Dr. G.C. Smith, Animal Science
*Dr. D.A. Suter, Agricultural Engineering
Dr. V.E. Sweat, Agricultural Engineering
Dr. C. Vanderzant, Animal Science
Dr. A.B. Wagner, Horticulture
Dr. R.D. Waniska, Soil and Crop Sciences

*These individuals have a major administrative function.
Current members. The current members of the Faculty are:

<table>
<thead>
<tr>
<th>Name</th>
<th>Department</th>
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<tbody>
<tr>
<td>Dr. Gary Acuff</td>
<td>Animal Science</td>
</tr>
<tr>
<td>Dr. Joseph Awika</td>
<td>Soil and Crop Science/Nutrition and Food</td>
</tr>
<tr>
<td>Dr. Elena Castell-Perez</td>
<td>Biological and Agricultural Engineering</td>
</tr>
<tr>
<td>Dr. Alejandro Castillo</td>
<td>Animal Science</td>
</tr>
<tr>
<td>Dr. Luis Cisneros-Zevallos</td>
<td>Horticulture</td>
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<tr>
<td>Dr. Russell Cross</td>
<td>Animal Science</td>
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<tr>
<td>Dr. Tri Duong</td>
<td>Poultry Science</td>
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<tr>
<td>Dr. Margaret Hardin</td>
<td>Animal Science</td>
</tr>
<tr>
<td>Dr. Kerri Harris</td>
<td>Animal Science</td>
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<tr>
<td>Dr. Jimmy Keeton</td>
<td>Nutrition and Food Science</td>
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<tr>
<td>Dr. Karen Kubena</td>
<td>Nutrition and Food Science</td>
</tr>
<tr>
<td>Dr. Joanne Lupton</td>
<td>Nutrition and Food Science</td>
</tr>
<tr>
<td>Dr. Rhonda Miller</td>
<td>Animal Science</td>
</tr>
<tr>
<td>Dr. Rosana Moreira</td>
<td>Biological and Agricultural Engineering</td>
</tr>
<tr>
<td>Dr. Elsa Murano</td>
<td>Nutrition and Food Science</td>
</tr>
<tr>
<td>Dr. Peter Murano</td>
<td>Nutrition and Food Science</td>
</tr>
<tr>
<td>Dr. Wesley Osburn</td>
<td>Animal Science</td>
</tr>
<tr>
<td>Dr. Timothy Phillips</td>
<td>Veterinary Anatomy and Public Health</td>
</tr>
<tr>
<td>Dr. Suresh Pillai</td>
<td>Poultry Science</td>
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<tr>
<td>Dr. Mian Riaz</td>
<td>Nutrition and Food Science</td>
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<tr>
<td>Dr. Lloyd Rooney</td>
<td>Soil and Crop Sciences</td>
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<tr>
<td>Dr. Leon Russell, Jr.</td>
<td>Veterinary Anatomy and Public Health</td>
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<tr>
<td>Dr. Jeffrey Savell</td>
<td>Animal Science</td>
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<tr>
<td>Dr. Stephen Smith</td>
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<td>Dr. Joseph Sturino</td>
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<td>Dr. Stephen Talcott</td>
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<tr>
<td>Dr. Susanne Talcott</td>
<td>Nutrition and Food Science</td>
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<tr>
<td>Dr. Matthew Taylor</td>
<td>Animal Science</td>
</tr>
<tr>
<td>Dr. Nancy Turner</td>
<td>Nutrition and Food Science</td>
</tr>
</tbody>
</table>
Faculty Affiliations
College of Agriculture and Life Sciences
   Departments of Agricultural Economics, Animal Science, Biological and Agricultural Engineering, Horticultural Sciences, Nutrition and Food Science, Poultry Science, Soil and Crop Sciences

College of Veterinary Medicine
Department of Veterinary Integrative Biosciences

Faculty Research Interests
Related to Food Science & Technology
- Safety, Microbiology, Virology
- Toxicology, Allergens and Mycotoxins
- Fermentation and Probiotics
- Food Chemistry, Biochemistry and Physico-chemical Properties
- Phytochemical Component Interactions
- Rheological and Structural Properties
- Engineering and Process Design
- Waste Utilization and Conversion
- Product Design and Technology Development
- Quality Assessment and Sensory Attributes
- Processing Technologies (Cereals, Meats, Poultry, Fruits, Vegetables)
- Food Marketing, Consumer Economics, Risk Assessment

For More Information Contact:

Interdisciplinary Faculty of Food Science & Technology
338 Kleberg Center
2253 TAMU
College Station, TX 77843-2253
Phone: 979-845-1735
Fax: 979-458-2702
E-mail: foodsciencegradprogram@ag.tamu.edu
Website: http://tamufood.org
**Graduate Degrees**

The master's and doctoral programs in Food Science and Technology allow emphasis in the biochemistry and technology of converting animals and plants into foods. Candidates may perform research in the areas of meat science, cereal chemistry, horticultural sciences, food chemistry, food engineering, food microbiology, food toxicology, food safety, or poultry science.

**Master of Science**

- **Thesis Option** - Students must complete a minimum of 32 semester credit hours of approved courses, as well as research for the preparation and defense of a thesis. An acceptable thesis must reflect a comprehensive understanding of the pertinent literature and express in clear and legible English, the problem(s) for study, methodology, significance, and results of the student's original research.

- **Non-Thesis Option** - Students must complete a minimum of 36 semester credit hours of approved courses and a final comprehensive examination. The requirements as to level of courses and examinations are the same as for the Thesis Option Master of Science degree. A student may be given only one opportunity to repeat the final comprehensive examination if it is not passed satisfactorily on the initial attempt.

**Doctor of Philosophy (Ph.D.)**

Studies leading to the Ph.D. degree are designed to give the candidate thorough and comprehensive knowledge of his or her professional field, as well as training in research methods. The criteria for granting the degree shall be the candidate's comprehension of the subject matter and a demonstrated ability to perform independent research. In addition, the candidate must have the ability to express thoughts clearly, both verbally and in written form. A minimum of 96 semester credit hours beyond the baccalaureate degree or 64 semester credit hours beyond the master's degree, and a dissertation are part of the minimum requirements for the Ph.D. degree.

**Admissions**

A formal application is required of all persons seeking admission or readmission to graduate studies at Texas A&M University. To gain admission to the program, you must fill out an application through the Office of Admissions and Records at the following website: [http://admissions.tamu.edu/](http://admissions.tamu.edu/)

The application forms are available on-line, and a non-refundable application fee is charged for processing the application.

Additional information about graduate programs at Texas A&M University can be found at the Office of Graduate Studies website: [http://ogs.tamu.edu/](http://ogs.tamu.edu/)

Applicants qualified for admission to graduate studies in Food Science and Technology will be considered for the program. Available positions will be filled as if laboratory facilities and/or supervisory faculty are available to provide academic and research guidance to the prospective student.
5.3 Rev Regents Application

Interdisciplinary Faculty of Food Science and Technology

Regent’s Fellowship Application

The Regent’s Fellowship is intended to support the recruitment of new students who have demonstrated academic excellence and wish to pursue a graduate degree in Food Science and Technology. New students are considered to be those who have applied and been accepted into the graduate program or those students who are within the first year of their graduate studies. Previous recipients of a Regent’s Fellowship are not eligible to apply for a second fellowship.

Please provide the following information in your application for a Regents Fellowship.

Letter of Introduction (1 page limit)

Personal Information – Cover Page (1 page limit)
1. Name:
2. Major:
3. Degree sought:
4. Past degree(s) earned, major field of study, and GPA/GPR for each degree:
5. Major advisor for current degree:
6. Starting semester/year at Texas A&M University:
7. GRE and TOEFL scores:
8. List any assistantships, scholarships, government grants or other support being provided for graduate studies at Texas A&M University:
9. Contact Information (e-mail address, phone number, mailing address):

Highlights and Accomplishments
Write a brief paragraph (<200 words) highlighting your personal and professional accomplishments (i.e. publications, presenting at a national meeting, awards, discoveries, etc.)

Personal Statement
Write a brief paragraph (<200 words) explaining your personal and professional goals upon completion of your degree.

Curriculum Vitae
Provide a curriculum vitae (5 page limit) summarizing your undergraduate or graduate degree experience, extra curricular activities, internships awards or other experiences that would provide the selection committee with your academic credentials in consideration of the Regents Fellowship.

The deadline for applications is August 1.
REGENT'S FELLOWSHIP EVALUATION FORM

Intercollegiate Faculty of Food Science

Score NAME ________________________________

_______ Letter of Introduction (1 page limit) – 5 pts

_______ Personal Information – Cover Page (1 page limit) – 5 pts

  Name:
  Major:
  Degree sought:
  Past degree(s) earned, major field of study, and GPA/GPR for each degree:
  Major advisor for current degree:
  Starting semester/year at Texas A&M University:
  GRE and TOEFL scores:
  List any assistantships, scholarships, government grants or other support being provided
  for graduate studies at Texas A&M University:
  Contact Information (e-mail address, phone number, mailing address)

_______ Highlights and Accomplishments – 10 pts

  Write a brief paragraph (<200 words) highlighting your personal and professional
  accomplishments (i.e. publications, presenting at a national meeting, awards, discoveries,
  etc.).

_______ Personal Statement – 10 pts

  Write a brief paragraph (<200 words) explaining your personal and professional goals upon
  completion of your degree.

_______ Curriculum Vitae – 20 pts

  Provide a curriculum vitae (5 page limit) summarizing your undergraduate or graduate degree
  experience, extra curricular activities, internships awards or other experiences that would
  provide the selection committee with your academic credentials in consideration of the
  Regents Fellowship.

Bonus Points

_______ GRE score (1-5 pts). Score must be 1000 or higher to earn 1 pt. Additional points earned for
  each 100 points on the test. (I.e. A score of 1250 earns 3 pts).

_______ GPR for the last earned degree. (1-5 pts). The GPR must be 3.0 to earn 1 pt. Additional
  points earned for 0.2 increments in GPR. (I.e. A GPR of 3.5 earns 3 pts)

_______ Earned MS degree over a BS degree: A bonus of 3 pts given to students with a MS degree
  in any discipline.
A degree in **food science** or closely related field. A bonus of 2 pts given to students with a food science undergraduate or graduate degree.

Bonus points for **outstanding accomplishments**. Up to 5 additional bonus points given to students that have distinguished themselves in their personal or professional careers.

TOTAL POINTS (70 possible)
5.4 FSTC Scholarship Application

Interdisciplinary Faculty of Food Science and Technology

Academic Excellence Scholarship Application Form

Please Type or Print

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<thead>
<tr>
<th>Applicant’s Name and Signature</th>
<th>Print Name</th>
<th>Signature</th>
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<td>Advisors Name and Signature</td>
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<tr>
<td>Applicant’s ID Number</td>
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<tr>
<td>Applicant’s Phone Number</td>
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<td>Applicant’s E-mail Address</td>
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<tr>
<td>Applicant’s GPR</td>
<td>Undergraduate GPR –</td>
<td>Graduate GPR –</td>
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<tr>
<td>Receiving Assistantship or Additional Funding</td>
<td>(Yes/No)</td>
<td>Type and Amount of Assistance</td>
</tr>
</tbody>
</table>

Dossier Requirements:
• Application Form
• Applicant’s Letter of Application
• Applicant’s Most Recent Transcript
• Applicant’s Curriculum Vita (to include career goals and evidence of academic achievement)
Interdisciplinary Faculty of Food Science and Technology

Academic Excellence Scholarship Application Instructions

The FSTC program is now accepting applications for scholarships to recognize academic excellence of current graduate students and the academic potential of new incoming students. An award of $1,000 will be granted on a competitive basis according to the following criteria:

The applicant must:

1. Be a full-time student in the FSTC program at the time of the award or be accepted and plan to attend Texas A&M University in the Fall Semester. Full time is defined as registration for a minimum of 9 credit hours during the fall and spring semester, 6 credit hours for a 10-week summer session or 3 credit hours for a 5-week summer session for the academic year that the award is offered.

2. Have a minimum cumulative grade point ratio (GPR) of 3.25 for all courses that are listed on the degree plan and for all graduate and advanced undergraduate course work (300- and 400- level) completed at TAMU that may be applied toward a graduate degree. Other conditions set forth under Scholastic Requirements in the most recent Graduate Catalog apply as well in calculating the GPR. Submit a copy of the applicant’s transcript. If the applicant is a current student at TAMU, a copy of the transcript from BONFIRE will be sufficient. For students entering the Fall Semester, their major professor should send in the appropriate materials required for the application.

3. Submit evidence of other forms of academic achievement including but not limited to presentations of research results by the applicant at national or international meetings, papers published or accepted in peer review journals, and evidence of leadership relative to the FSTC program. Together with the GPR, these additional achievements will be considered in determining the award. The best way to accomplish this requirement is to submit a one-to-two page curriculum vita.

4. Applicants should submit a letter of application addressing the stated criteria (what you have accomplished in the program, how you will utilize the funds if awarded the scholarship) through their major advisor and addressed to the Chair of the FSTC Faculty stating how this scholarship will be used to further their professional development at TAMU. The letter and application materials must be sent to Ms. Audra Tackitt, Administrative Assistant, Interdisciplinary Faculty of Food Science, Texas A&M University, Room 338, Kleberg Center (MS 2253) no later than 12:00 p.m. on May 30th.

5. Each year, an outstanding FSTC student will be selected from among the applicants. That student will be formally recognized at the annual meeting of the FSTC Faculty.

The awards Committee, selected from FSTC faculty members, will review the applications and submit recommendations for awards to the Executive Committee. The Executive Committee will approve the awards and the Chair will notify all applicants as to the fate of their application. Funds associated with the awards will be distributed through the Department of Student Financial Aid.
5.5 Travel Scholarship Application
Interdisciplinary Faculty of Food Science and Technology

Travel Award Application

<table>
<thead>
<tr>
<th>Applicant’s Name:</th>
<th>Applicant’s Signature</th>
</tr>
</thead>
<tbody>
<tr>
<td>UIN:</td>
<td>Title:</td>
</tr>
<tr>
<td>Phone No:</td>
<td>E-mail Address:</td>
</tr>
<tr>
<td>Date/Time of Departure:</td>
<td>Date/Time of Return:</td>
</tr>
<tr>
<td>Destination: (Professional Meeting, Location)</td>
<td></td>
</tr>
<tr>
<td>From: College Station, TX</td>
<td>To: (City, State, Country)</td>
</tr>
<tr>
<td>Purpose of the Travel:</td>
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</tr>
<tr>
<td>Mode of Transportation: (Private Auto, Official Auto, Commercial Airline, etc.)</td>
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</tr>
<tr>
<td>Accompany By: (List other parties; explanation required for two or more employees attending with similar duties.)</td>
<td></td>
</tr>
<tr>
<td>Funding Source: (List the source of additional funding for travel)</td>
<td>(Yes/No)</td>
</tr>
<tr>
<td>Advisor’s Name: (Print)</td>
<td>Advisor’s Signature: (For Approval)</td>
</tr>
</tbody>
</table>

Attach a copy of the abstract to be presents to the Travel Award Application.
Policies for Requesting Food Science and Technology Travel Funds

Reimbursement of travel expenses can be requested from the Interdisciplinary Faculty of Food Science and Technology through the Travel Award Selection Committee. Recipients of the travel funds are for supporting travel to professional conferences for applicants making a formal presentation. Awards are provided based on selection by the Travel Awards Committee.

Selection considerations are based on the quality of the attached abstract. Some consideration will be given to distribution across departments so that awards are allocated within the program across departments. Travel requests must be submitted by May 30 to be considered.

*Qualifications for receiving a FSTC Travel Award are as follows:*

1. The applicant MUST be a FSTC graduate student.

2. The applicant MUST be presenting a paper, poster, or seminar at a professional national/international conference. These could include IFT, AOCS, AACC, AMA, RMC, ASAS, and others.

3. A FSTC Travel Award Application must be completed and submitted to Ms. Audra Tackitt, Interdisciplinary Faculty of Food Science, Texas A&M University, Room 338, Kleberg Center (MS 2253), *no later than 12:00 p.m. on May 30.*

4. The Travel Request MUST have the advisor’s signature of the applicant.

5. A copy of the approved abstract must be attached to the Travel Award Application.

6. Expenses will only be reimbursed at a predetermined amount that will be defined by the Travel Award Selection Committee.

7. The funds will be provided to the awardees as a scholarship to support travel by the FSTC Travel Award Committee. Only one award will be provided per student.

8. No receipts will be required since a travel voucher will not be required.
5.6 Faculty Honors & Awards

Alejandro Castillo:
State Award to the Professional Merit, granted by the National Federation of Professional Boards. Mexico. Date granted: 07-29-1994

Joseph M. Awika:
Texas A&M:
- 2002: Tom Slick Senior Graduate Research Fellowship, Texas A&M University (College of Agriculture)
- 2002-2003: Outstanding Graduate Student, Food Science & Tech. Intercollegiate Faculty Award, Texas A&M University
- 2002-2003: Academic Excellence Award, Food Science & Tech., Texas A&M University
- 2001-2002: Academic Excellence Award, Food Science & Tech., Texas A&M University

National:
- 2001-2002: Bill Doherty Memorial Fellowship (American Association of Cereal Chemists)
- 2000-2001: American Association of Cereal Chemists Graduate Fellowship

Regional/State:
- 2000-2001: Institute of Food Technologists (Longhorn) Scholarship
- 1999-2000: Institute of Food Technologists (Longhorn) Scholarship
- 2000-2001: Texas Food Processors Association Scholarship
- 1999-2000: Texas Food Processors Association Scholarship

Castell-Perez, Maria Elena:
- Nominated for the COALS Vice Chancellor Excellence in Teaching Award – 2006.
- Nominated for the TEES Research Award – 2007.
- Alpha Epsilon Agricultural Engineering Society
- Sigma Delta Pi Spanish Language Honor Society
- Phi Beta Delta International Scholar Honor Society
- Phi Tau Sigma Food Science Honorary Society

Tri Duong:
- National Science Foundation IGERT Fellowship – 2002-2005
- Institute of Food Technologists Student Association Achievement Award - 2005
- North Carolina State University Genomics Fellowship – 2007

Elsa A. Murano:
- Inducted into the Texas Woman of the Year Hall of Fame, 2008.
- Named one of 15 Elite Women by Hispanic Business Magazine, April 2008.
- American Meat Institute’s Industry Advancement Award, October 2005.
• Inducted into the National Hispanic Scholarship Fund Hall of Fame, September 2005.
• Named one of the 100 Most Influential Hispanics by Hispanic Business Magazine, October 2002.
• Sadie Hatfield Endowed Professorship in Agriculture, Texas A&M University, 2000-2001.
• ISU Foundation Award on Early Achievement (nominated from MIPM), Iowa State University, 1994.
• Institute of Food Technologists Certificate of Merit for Outstanding Scholarship, 1989.
• National Hispanic Fellowship for Scholarship, 1988.
• American Society for Microbiology National Pre-Doctoral Minority Fellowship for Outstanding Research and Scholarship, 1987.

Kerri B. Harris:

• Teaching emphasis
  o Educator of the Year Award, North American Meat Processors Association, April 2005
• Research emphasis
  o Vice Chancellor’s Award in Excellence for Beef Safety Research Team Award, January 2005
  o Texas A&M University Academic Excellence Scholarship, 1991-1992
• Extension/public service emphasis
  o Professional Award, National Meat Association, February 2003
  o Achievement Award, American Meat Science Association, July 2001
  o Meat Processing’s Rising Star, March 2000
  o Vice Chancellor’s Award in Excellence for Industry/Agency/Association Partnerships, Dec. 2000
  o Outstanding Service Award, Department of Animal Science, 1993

H. Russell Cross:

• American Society of Animal Science Young Scientist Award, 1978
• American Society of Animal Science National Meat Research Award, 1983
• President of the American Meat Science Association, 1982-1983
• Deputy Chancellor Award for Team Research, Texas A&M, 1986
• George Strathearn Memorial Research Award, CA Beef Council, 1987
• Merchandiser of the Year Award, Texas Cattle Feeders Association, 1988
• Progressive Farmer, Man of the Year Award, 1989
• Distinguished Research Award, American Meat Science Association, 1990
• Educator of the Year Award, North American Meat Processors Assn., 1991
• Signal Service Award, American Meat Science Association, 1992
• Forbes Award, National Meat Association, 1996
• Distinguished Service Award, U.S. Meat Export Federation, 1998
• Industry Advancement Award, American Meat Institute, 1998
• R. C. Pollock Award, American Meat Science Association, 1999
• Hall of Fame Recipient, International Stockmen’s Education Foundation, 2002
• Meat Industry Hall of Fame Inductee, 2009

Jimmy T. Keeton:

• 1968 M.S., College of Agriculture Graduate Scholarship, University of Tennessee
• 1974  Ph.D., Gamma Sigma Delta Graduate Scholarship, University of Tennessee
• 1985-87  Outstanding Service Award, Advisor to Alpha Zeta
• 1990  Appreciation Award, Texas Association of Meat Processors
• 1990-92  Director’s Award, American Meat Science Association
• 1991-92  President’s Award, Gamma Sigma Delta
• 1992  RMC Chairman’s Award, 45th Reciprocal Meat Conference of the American Meat Science
  • Association, Colorado State University
• 1993  Award for Excellence, American Ostrich Association
• 1993  COALS Faculty Development Leave to the Commonwealth Scientific Industrial Research
  • Organization (CSIRO), Meat Research Laboratory, Cannon Hill, Queensland, Australia
• 1993  Meat Processing Award, American Meat Science Association
• 1994  Outstanding Presentation Award, American Ostrich Association
• 1999  President’s Award, American Meat Science Association
• 2000  Past-President’s Award, American Meat Science Association
• 2001  Signal Service Award, American Meat Science Association
• 2004  Vice Chancellor’s Award in Excellence for Team Research – The Beef Safety Team,
  Department of Animal Science. Members – Gary R. Acuff, Davey B. Griffin,
  Daniel S. Hale, Kerri B. Harris, Jimmy T. Keeton, Rhonda K. Miller, Jeffery W. Savell
• 2005  Faculty Fellow, Texas Agricultural Experiment Station (now AgriLife Research)
• 2007  Evelyn and Ed F. Kruse ’49 Faculty Fellowship in Food Sciences

Karen S. Kubena:
• 2008  American Dietetic Association Excellence in Dietetic Education Award for Didactic
  Programs in Dietetics, Area IV (Arizona, Colorado, Nevada, New Mexico, Oklahoma, Texas
  and Utah)
• 2008  Dietetic Educator of the Year Award for Didactic Programs in Dietetics by the Texas
  Dietetic Association
• Outstanding Service Award. National Association of State Universities and Land Grant Colleges
  Board on Agriculture Assembly, Academic Programs Section - 2007
• 2004 Alumni Fellow Award for College of Agriculture and Life Sciences by Mississippi State
  University
• Texas A&M Honors Invitational for National Merit semi-finalists –invited faculty speaker - 2003-09
• Wakonse Fellow, Wakonse Conference on Innovative College Teaching, Shelby, Michigan - 1999
• Service Certificate, Commission on Accreditation/Approval for Dietetics Education – 1997
• Recognition of Service Award, American Dietetic Association - 1994-99
• Association of Former Students of Texas A&M University Distinguished Teaching Award - College
  of Agriculture and Life Sciences, 1992
• Sigma Xi, National Honorary Research Society, 1991
• Outstanding Service Award, The American Dietetic Association, 1989, 1990
• Outstanding Women in Texas Government Award Certificate of Appreciation, 1990
• American College of Nutrition - Elected as Fellow (FACN) – 1988
• Phi Kappa Phi, National Honorary Society, 1976
• Gamma Sigma Delta, National Honorary Agricultural Society, 1976
• Phi Tau Sigma, National Food Science Honorary Society, 1975
• Kappa Omicron Phi, National Honorary Home Economics Society, 1975
• NIH Allied Health Trainee Award, Mississippi State University, Starkville, 1974-76
• Senior Honors, University of Wisconsin, 1967

Joanne R. Lupton:

• Vice Chancellor’s Award for Research, Texas A&M University, 1998. Presented to one individual/year for on-campus research.
• Regent’s Professor, Texas A&M University, 1999-present.
• Appointed to Food Forum, Institute of Medicine, National Academy of Sciences, 1999-2005.
• University Faculty Fellow, inaugural class, 2000 – present.
• Chair, Panel to determine the definition of dietary fiber, Dietary Reference Intake Committee (DRI) of the National Academy of Sciences, 2000-2001.
• Chair, Macronutrient Panel, Dietary Reference Intake Committee (DRI) of the National Academy of Sciences to determine scientific guidelines for energy, carbohydrates, fiber, protein and lipids, 2000-2003
• Program Leader for Nutrition, Physical Fitness and Rehabilitation, NASA/National Space Biomedical Research Institute, 2000-present.
• Appointed Lifetime Associate, the National Academy of Sciences, 2002-present.
• Visiting Scholar, Food and Drug Administration, College Park, MD. 1 year appointment, 2003.
• Appointed to Commissioner’s Task Force for Better Nutrition.
• Received Commissioner’s Special Citation and medal for contribution to developing an evidence-based system for health claims.
• Appointed to the Board of Trustees, International Life Sciences Institute, North America, 2004-present
• Appointed US nutrition advisor to the international program on artificial gravity for long duration space flight, 2004-present.
• Appointed to the Food Advisory Committee, Food and Drug Administration, 2005-present.
• President-Elect American Society of Nutritional Sciences (ASNS), then elected to the transition executive board for forming the new society (ASN), 2005-2006
• President-Elect American Society for Nutrition (ASN), 2006-2007
• Elected to the International Astronautical Congress, 2006.
• Association of Former Students Distinguished Achievement Award for Research, Texas A&M University, 2007
• President, American Society for Nutrition (ASN), 2007-2008
• Past-President, American Society for Nutrition (ASN), 2008-2009
• Appointed to the Nutrition Advisory Committee to Commissioner Todd Staples, Texas Department of Agriculture, 2007-present
• Appointed to the Board of Directors of the Federation of American Societies for Experimental Biology (FASEB), 2007-2009
• Elected Fellow, American Society for Nutrition, 2009-present

Thomas Matthew Taylor:

• Chancellor’s Citation for Professional Promise, University of Tennessee-Knoxville, Dec. 2006.
• 1st Place Recipient, Z. John Ordal Graduate Research Competition, Institute of Food Technologists, July 2003.

Moreira, Rosana Galves:

• COALS Faculty Fellow - 2006
• Dwight Look College of Engineering Fellow - 2006
• Nominated for the IFT Nicolas Appert Award – 2006-2007
• Recognition award for the work done for CIGR ejournal as editor- in-chief – 2006
• Alpha Epsilon Agricultural Engineering Honor Society
• Phi Beta Delta International Scholars Honor Society

Peter S. Murano:

• June 2004 U.S. Secretary of Agriculture’s Honor Award for Superior Service, National Fruit and Vegetable Pilot Program.
• 2000 Distinguished Teaching Award, Texas A&M University Association of Former Students, College of Agriculture and Life Sciences.
• 1998 Wakonse Teaching Fellow, College of Agriculture and Life Sciences, Texas A&M University,
• 1989 First Place, Student Scientist Awards Competition, Southern Association of Agricultural Scientists Annual Meeting, Nashville, TN.,
• 1988 Outstanding Graduate Student Award, Department of Human Nutrition & Foods, Virginia
• Polytechnic Institute & State University, Blacksburg, VA

Phillips, Timothy D:

• Sigma Xi National Award for “Innovation” (Chubb Award), 2009
• Texas AgriLife (TAES) Senior Faculty Fellow’s Distinction, 2008
• FAO JECFA Expert Panel, Food Contaminants and Natural Toxicants, 2007 -2011
• Texas A&M System Innovation Award for Research, 2007
• TAMU Faculty Distinguished Achievement Award in Research, 2006
• Bush Award for Excellence in International Research (Bush Library, 2005)
• Sigma Xi Distinguished Scientist Award (TAMU, 2003)
• Faculty Fellow distinction, Texas Agricultural Experiment Station, 2002
• BIFAD Chair’s Award for Scientific Excellence, Capitol Hill, Washington, D.C., 2002
• Pfizer Award for Excellence in Research, 1998
• SmithKline Beecham Award for Research, 1993
• Engelhard Chemical Corporation Achievement Award for Research, 1989
• TAMU Faculty Distinguished Achievement Award in Research, 1988
• Texas A&M University System Award in Research, 1986

Suresh D. Pillai:

• 2008 President’s Travel Fund Award- Society for Applied Microbiology (SFAM)
• 2008 Distinguished Lecturer, Institute of Food Technologists (IFT)
• 2007 Distinguished Lecturer, Institute of Food Technologists (IFT)
• 2007 Texas Environmental Excellence Award (Team-member)
• 2006- Member, Scientific Advisory Board, Department of Homeland Security Center for Advanced Microbial Risk Assessment
• 2006- Expert Panel Member, Govt. Accountability Office (GAO), Washington, DC.
• 2004- Elected Member, Council of Principal Investigators, Texas A&M University
• 2003-2007 Member, Scientific Advisory Board, Warnex, Inc.
• 2002 TAES Faculty Fellow, Agriculture Program, Texas A&M University
• 2001 Appointed Member, National Academy of Science/National Research Council Committee on Toxicants and Pathogens in Biosolids.
• 2001 Nominee, Texas A&M University Faculty Fellows Program
• 2000 Member, Faculty Senate, Texas A&M University
• 1988 Graduate Tuition Scholarship, University of Arizona, Tucson.
• 1986 Graduate Academic Scholarship, University of Arizona, Tucson.
• 1988 University of Arizona Foundation Award as a Graduate Teaching Assistant
• 1988 Kate C. Lewis Academic Scholarship, University of Arizona, Tucson

Lloyd W. Rooney:

• Texas A&M Presidential Award of Excellence for Faculty Service to International Students (2007)
• Yum Kax Research Award for Nixtamalization, 1st International Nixtamalization Congress, Queretaro, Mexico (2006)
• Service Award for Lifetime Support of Global Sorghum Development, 5th National Australian Sorghum Conference (2006)
• TAMU Regents Professor Award (2004)
• INTSORMIL Recognition - Principal Investigator, 22 years, Distinguished Performance Award (2002)
• Mexican National Academy of Science International Member (2001), Distinguished Researcher Award
• Texas A&M University Former Students Distinguished Performance Award in Research (1999)
• American Association of Cereal Chemistry International Distinguished Teacher Award (1997); Northwest Section, Geddes Memorial Lecture Award (1999); AACC International Fellow Award (1993); Corn Refiners Award, Best Paper (1984); Best Poster (1990)
• American Society of Agronomy, Best Paper Award (1974)
• National Sorghum Producers Association Distinguished Service Award for Sorghum Utilization Research (1985)

Leon H. Russell:

• Phi Tau Sigma, Gamma Sigma Delta, Phi Kappa Phi, Sigma Xi, Phi Zeta
• Texas Veterinary Medical Association Faculty Achievement Award (1969)
• Texas A&M University Veterinary Students "Good Stick Award" (1974)
• Norden Distinguished Teaching Award (1977)
• Former Students Association Faculty Distinguished Achievement Award in Student Relationships (1979)
• Former Students Association, College of Veterinary Medicine Teaching Excellence Award (1982)
• American Veterinary Medical Association Certificate of Appreciation (1984)
• Association of Teachers of Veterinary Public Health and Preventive Medicine of the United States and Canada, Award of Recognition (1984)
• Alumnus of the Year, University of Missouri, College of Veterinary Medicine, Alumni Association (1985)
• Texas Veterinary Medical Association Faculty Achievement Award in Research (1988)
• American College of Veterinary Preventive Medicine Certificate of Appreciation (1988)
• American College of Veterinary Preventive Medicine "Distinguished Diplomate" (1989)
• TAMU Deputy Chancellor’s Award for Excellence in Graduate Teaching (1990)
• American College of Veterinary Preventive Medicine Certificate of Appreciation (1990)
• American Veterinary Epidemiology Society, Honorary Diploma (1990)
• Louisiana Veterinary Medical Association, Resolution of Recognition (1991)
• Commonwealth of Kentucky, Gov. B.C. Jones, Commissioned as Kentucky Colonel (1992)
• El Paso, Texas, Mayor Larry Francis, Key to the City of El Paso (1994)
• University of Missouri, College of Veterinary Medicine, Recognition of Service (1994)
• Association of Military Surgeons of U.S., General James A. McCallam Award (1994)
• Texas Veterinary Medical Association, President’s Award (1995)
• Appointed to the Texas Committee on Transmissible Spongiform Encephalopathies by Texas Department of Health (1997)
• Helwig-Jennings Award (1998)
• Distinguished Membership, Texas Veterinary Medical Association (1998)
• Appointed to the Texas Department of Health’s Committee on Bioterrorism (1998-1999)
• Selected as “The B.G. Russell McNellis Memorial Guest Lecturer” for the keynote address at the 49th International Military Veterinary Medicine Symposium, Chiemsee, Germany (October, 1998)
• Appointed by the U.S. Secretary of Agriculture to the National Advisory Committee on Microbiological Criteria (1999-2001)
• XIth International Veterinary Congress Prize (July, 2000)
• Received a certificate of appreciation from the American Board of Veterinary Specialties for 6 years of service on the ABVS, February 29, 2004.
• Commencement Speaker of the College of Veterinary Medicine, University of Missouri, Columbia, on May 14, 2004.
• Keynote Speaker of the Opening Plenary Session of the 13th Congress of Chile Veterinary Medicine, November 4, 2004, University of Austral, Valdivia, Chile. Title of the one hour lecture: “The Most Important Problems of Food Safety”.
• Southwest Veterinary Symposium Award for World Leadership in Veterinary Medicine, Ft. Worth, TX, September 2005.
• Keynote Speaker of Opening Plenary Session of the Veterinary Public Health Congress in Brazil, November 2005: “Bioterrorism”
• Keynote Speaker at 2006 World Veterinary Day. January 5, 2006, Taiwan: The Global Role of the Veterinarian”
• AVMA President’s Award, July 15, 2006, Honolulu, Hawaii
• Keynote Speaker at the St. George’s University College of Veterinary Medicine’s “White Coat Ceremony”, August 22, 2006, St. George, Grenada

Jeffrey W. Savell:

Teaching emphasis
• Deputy Chancellor’s Distinguished Performance Award for Undergraduate Teaching — 1984
• Distinguished Achievement Award in Teaching, Association of Former Students, Texas A&M University — 1988
• Outstanding Professor Award, Texas A&M University Collegiate FFA — 1992
• American Meat Science Association’s Distinguished Teaching Award — 1997
• Namesake (Camp Savell), T-Camp, Texas A&M University, 1997
• Honor Professor Award, given by the College of Agriculture and Life Sciences Student Council, 42nd Annual Agriculture and Life Sciences Convocation — 1998
• Harry L. Rudnick Educator’s Award, North American Meat Processors Association, 2003
• Distinguished Achievement Award in Teaching, College Level, Association of Former Students — 2008
• Teaching Excellence Award (top 3% category), SLATE (Student-Led Awards for Teaching Excellence), Texas A&M University, The Texas A&M University System – 2009.
Research emphasis

- Deputy Chancellor for Agriculture’s Distinguished Performance Award for Team Research (for electrical stimulation) — 1982
- Southern Section, American Society of Animal Science Outstanding Young Scientist Award — 1985
- Deputy Chancellor for Agriculture’s Award in Excellence for Team Research (for the National Consumer Retail Beef Study) — 1986
- George Strathearn Memorial Research Award, California Beef Council — 1987
- Beef Merchandising Award, Texas Cattle Feeders Association — 1988
- Meat Research Award, American Society of Animal Science — 1990
- Distinguished Research Award, American Meat Science Association — 1991
- Vice Chancellor for Agriculture’s Award in Excellence for Team Research (for the Beef CARDS program) — 1993
- Vice Chancellor’s Award in Excellence — Research on Campus — 1997
- Vice Chancellor’s Award in Excellence Team Award — 1998
- Highly Cited Researcher, ISI HighlyCited.com — 2001
- Vice Chancellor’s Award in Excellence for Team Research (Beef Safety Team) — 2004
- Vice Chancellor’s Award in Excellence for System Academic Partnership (Stress Physiology Team) — 2008.

Extension/public service emphasis

- Progressive Farmer Magazine’s Southwestern Man of the Year in Service to Agriculture — 1989
- Texas Agricultural Extension Service Superior Service Team Award (Beef 101) — 1996
- Vice Chancellor’s Award in Excellence for Partnerships (Beef 706) — 1997
- Vice Chancellor’s Award in Excellence Team Award (Beef 101) — 2003
- National Meat Association E. Floyd Forbes Award — 2005

Smith, Stephen B:

- Loren D. Carlson Prize in Physiology, University of California, Davis (1980);
- Outstanding Young Animal Scientist Award, American Society of Animal Science, Southern Section (1988);
- Meat Science Research Award, American Society of Animal Science (1993);
- Vice Chancellor’s Award in Excellence (Team Research) (1997);
- Distinguished Research Award, American Meat Science Association (1998);
- Vice Chancellor’s Award in Excellence (International Involvement) (2003).

Joseph Sturino:
• 1993  A. J. Riker Academic Scholarship (UW-Madison)
• 1994  Inducted into the Alpha Chi Sigma Professional Chemistry Fraternity
• 1995  Senior Honors Thesis Fellowship (UW-Madison)
• 2000  National Institute of Health Biotechnology Training Program Fellowship (NCSU)
• 2000  National Science Foundation Research Ethics Fellowship (NCSU)
• 2002  Speaker Travel Grant, FEMS Seventh Symposium on Lactic Acid bacteria
• 2002  Speaker Travel Grant, ASM Sixth Conference on Streptococcal Genetics
• 2002  Speaker Travel Grant, Plasmid Biology
• 2002  Inducted into the Sigma Xi Scientific Research Honor Society
• 2002  Inducted into the Phi Tau Sigma Food Science Honor Society
• 2003  NCSU Microbiology Dept. Sole Nominee for Keller Award (Best dissertation)
• 2002 – 2004  Chr. Hansen Innovation Excellence Award
• 2007  NFSC Nomination, TAMU Life Science Building Occupancy
• 2008 – 2010  Editorial Board, Applied and Environmental Microbiology

Susanne U. Talcott:

• ASN Mary Swartz Rose Young Investigator Award, 2009. American Society of Nutrition
• First Place, Research Competition. Nutrition Division, Institute of Food Technologists (IFT) Annual meeting 2004, Las Vegas, NE.
• Presidential Recognition for outstanding students, University of Florida, Gainesville, FL, 2004
• Graduate Student Council Travel Scholarship. University of Florida, Institute of Food Technologists Annual meeting, Chicago, IL. 2002, 2003, 2004
• Institute for Agricultural and Life Sciences Travel Scholarship. University of Florida, Gainesville, FL. 2003, 2004
• First Place, student poster competition, Fruit and Vegetable Division, Division, IFT Annual meeting 2003, Chicago, IL.
• Gamma Sigma Delta Honor Society of Agriculture, University of Florida, Gainesville, FL. Member since 2002
• George K. Davis Fellowship, Institute for Agricultural and Life Sciences, University of Florida, Gainesville, FL. 2000-2004
• Scholarship Carl-Duisberg-Association, Germany. Study abroad program at the College of Technology, Dublin, Ireland. 1993

Nancy Delane Turner:

• Dan F. Jones Memorial Scholarship, 1990
• Registered as a Certified Nutrition Specialist, 1995
• 1998 Ethel Ashworth-Tsutsui Memorial Award for Mentoring, received 1/27/99
• Received a SEBM Travel Fellowship Grant to attend EB 2000.
## 5.7 IFS Faculty Publications, Grants and Graduate Student Abstracts

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Core Faculty Publications</th>
<th>Grants Received</th>
<th>Grad Students Abstracts</th>
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## 5.7 IFS Faculty Publications, Grants and Graduate Student Abstracts

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<thead>
<tr>
<th>Faculty Name</th>
<th>Publications</th>
<th>Grants</th>
<th>Student Abstracts</th>
<th>Average Per Faculty Reporting (22)</th>
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<tr>
<td>Leon H. Savell, Jeffrey W.</td>
<td>3</td>
<td>5</td>
<td>6</td>
<td>4/266,100</td>
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<td>Smith, Stephen B.</td>
<td>5</td>
<td>7</td>
<td>13</td>
<td>2/ 125,000</td>
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<td>Sturino, Joseph M.</td>
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<td>0</td>
<td>0</td>
<td>1/ 148,000</td>
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<td>Talcott, Stephen T.</td>
<td>10</td>
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<td>6</td>
<td>5/ 637,252</td>
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<td>Talcott, Susanne</td>
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<td>Taylor, T. Matthew</td>
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<td>Turner, Nancy D.</td>
<td>1</td>
<td>5</td>
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<td>6/ 1,156,279</td>
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<td><strong>Total</strong></td>
<td><strong>93</strong></td>
<td><strong>113</strong></td>
<td><strong>105</strong></td>
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NOTE: Some faculty reported funded projects, but did not include total amounts.
# 5.8 IFS Faculty Grants Funded

## Grants Funded (3-Year Summary)

<table>
<thead>
<tr>
<th>PI</th>
<th>Agency/Source</th>
<th>Title</th>
<th>Amount</th>
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<tbody>
<tr>
<td>Awika, Joseph</td>
<td>Texas Wheat Producers Board</td>
<td>Developing efficient methods to evaluate wheat for tortilla production</td>
<td>Total: $20,000</td>
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<td></td>
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<td>Pi Amount: $20,000</td>
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<tr>
<td>2009</td>
<td>TAMU International Programs Office</td>
<td>Improving micronutrient bioavailability and quality of grain-based staple foods in Kenya</td>
<td>Total: $1,400</td>
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<td></td>
<td></td>
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<td>Pi Amount: $1,400</td>
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<tr>
<td>Castell-Perez, Elena</td>
<td>CORANET</td>
<td>Study of the Use of Oxygen-Absorbing Packaging Material to Prolong Shelf Life of Rations</td>
<td>Total: $315,050</td>
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<tr>
<td>2006(Co-PI)</td>
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<td></td>
<td>Pi Amount: $158,000</td>
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<td></td>
<td>CORANET</td>
<td>Study of the Use of Oxygen-Absorbing Packaging Material to Prolong Shelf Life of Rations. Phase II</td>
<td>Total: $112,000</td>
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<td>2007(Co-PI)</td>
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<td>USDA-NRI</td>
<td>A Rheometer for Characterization of Food and Other Materials</td>
<td>Total: $18,000</td>
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<td>2007</td>
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<td>2008(Co-PI)</td>
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<td>Texas Specialty Crop Block program, Texas Department of Agriculture</td>
<td>Improving Safety of Leafy Vegetables</td>
<td>Total: $78,439</td>
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<td>2009(Co-PI)</td>
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<td>CORANET</td>
<td>Extended Shelf Life Shell Eggs</td>
<td>Total: 300,000</td>
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<td>2010</td>
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<td>Pi Amount: $200,000</td>
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## 5.8 IFS Faculty Grants Funded

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Castillo, Alejandro</td>
<td>USDA/CSREES</td>
<td>Sustained Activity Interventions for Further Reductions of Salmonella and <em>Escherichia coli</em> O157:H7 on Beef Carcasses and in Ground Beef</td>
<td>$60,975 (PI Amount: $60,975)</td>
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<td></td>
<td>USDA/CSREES</td>
<td>Electron Beam Irradiation for Improving the Safety of Fruits and Vegetables</td>
<td>$69,450 (PI Amount: $69,450)</td>
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<td></td>
<td>NCBA</td>
<td>Tracing pathogen contamination through the post-harvest environment</td>
<td>$69,000 (PI Amount: $69,000)</td>
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<td></td>
<td>American Meat Institute Foundation</td>
<td>Evaluation of alternative cooking and cooling procedures for large, intact meat products to achieve lethality and stabilization microbiological performance standards</td>
<td>$74,500 (PI Amount: $74,500)</td>
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<td></td>
<td>National Pork Board</td>
<td>Efficacy of novel food antimicrobial combinations for the in vitro control of the foodborne pathogen <em>Listeria monocytogenes</em></td>
<td>$50,000 (PI Amount: $50,000)</td>
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<td></td>
<td>NCBA</td>
<td>Evaluation of different temperatures and dwell times of hot water in reducing levels of <em>Salmonella</em> Typhimurium and <em>Escherichia coli</em> O157:H7 on beef carcass surfaces</td>
<td>$65,080 (PI Amount: $65,080)</td>
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<tr>
<td></td>
<td>NCBA</td>
<td>Determination of antimicrobial mechanisms of hot water and L-lactic acid carcass interventions against <em>Escherichia coli</em> O157:H7</td>
<td>$35,015 (PI Amount: $35,015)</td>
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<table>
<thead>
<tr>
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<tbody>
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<td>Hardin, Margaret</td>
<td>USDA/CSREES</td>
<td>National Center For Electron Beam Research --Food Safety.</td>
<td>$69,450 (PI Amount: $34,000)</td>
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<td>2007</td>
<td>USDA/NIFSI</td>
<td>Quantifying Microbial Risks during Growth of Produce</td>
<td>$400,000 (PI Amount: $60,000)</td>
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<td></td>
<td>National Pork Board</td>
<td>Effects of Commercial Chilling Processes on the Survival of <em>Salmonella, Campylobacter coli</em> and <em>Yersinia</em> spp in Pork Variety Meats</td>
<td>$52,795 (PI Amount: $52,795)</td>
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<td>Hardin, Margaret</td>
<td>USDA Food Safety and Inspection Service</td>
<td>FSIS FERN (Federal Response Research Network) Laboratory Validation</td>
<td>$198,300 (PI Amount: $198,300)</td>
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<tr>
<td>2007</td>
<td>National Pork Board</td>
<td>Efficacy of novel food antimicrobial combinations for control of <em>Listeria monocytogenes</em> for preservation of ready-to-eat (RTE) products</td>
<td>$34,287</td>
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### 5.8 IFS Faculty Grants Funded

<table>
<thead>
<tr>
<th>Year</th>
<th>Agency/Source</th>
<th>Title</th>
<th>Amount</th>
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<tbody>
<tr>
<td>2008</td>
<td>American Meat Institute Foundation/ National Pork Board</td>
<td>A National Survey of the Nitrite/Nitrate Concentrations in Cured Meat</td>
<td>$34,287</td>
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<td>2008</td>
<td>National Pork Board</td>
<td>Validation of sanitation procedures to prevent the cross contact with allergens during the processing of pork products</td>
<td>$52,925</td>
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<tr>
<td>2008</td>
<td>Texas Beef Council/National Cattlemen’s Beef Association</td>
<td><em>Escherichia coli</em> O157:H7 and <em>Salmonella</em> spp. Risk Assessment During the Production of Marinated Beef Strips and Roasts</td>
<td>$60,000</td>
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<tr>
<td>2008</td>
<td>National Cattlemen’s Beef Association</td>
<td>Evaluation of different temperatures and dwell times of hot water to achieve maximum effectiveness in reducing levels of <em>Salmonella Typhimurium</em>, <em>Escherichia coli</em> O157:H7 and coliforms/<em>Escherichia coli</em> on beef carcass surfaces</td>
<td>$65,080</td>
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<tr>
<td>2008</td>
<td>National Cattlemen’s Beef Association</td>
<td>Determination of antimicrobial mechanisms of hot water and L-lactic acid carcass interventions against <em>Escherichia coli</em> O157:H7</td>
<td>$35,010</td>
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<td>2008</td>
<td>FSIS</td>
<td>Microbiological Validation Study for FSIS FERN (Federal Response Research Network)</td>
<td>$205,000</td>
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<tr>
<td>2008</td>
<td>National Pork Board</td>
<td>Effect of commercial chilling on the survival of <em>Salmonella</em>, <em>Campylobacter coli</em> and <em>Yersinia</em> spp. in pork variety meats</td>
<td>$76,815</td>
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<td>2009</td>
<td>American Meat Institute Foundation</td>
<td>Evaluation and Performance of the PremiTest® <em>Salmonella</em> serotyping system on pork and poultry isolates from commercial sources Rapid Method for <em>Salmonella</em></td>
<td>$49,800</td>
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<tr>
<td>2009</td>
<td>National Cattlemen’s Beef Association</td>
<td>Evaluation of <em>Escherichia coli</em> O157:H7 translocation and decontamination for beef vacuum-packaged subprimals destined for non-intact use</td>
<td>$79,000</td>
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### 5.8 IFS Faculty Grants Funded

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Harris, Kerri</td>
<td>American Meat Institute</td>
<td>Evaluation of alternative cooking and cooling procedures for large, intact meat products to achieve lethality and stabilization microbiological performance standards</td>
<td>Total: $70,500</td>
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<td>2007</td>
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<td>PI Amount: $70,500</td>
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<td>2007</td>
<td>National Cattlemen’s Beef Association on behalf of the Cattlemen’s Beef</td>
<td>Tenderness, flavor, and yield assessments of dry aged beef</td>
<td>Total: $60,000</td>
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<tr>
<td>2007</td>
<td>USDA/Food Safety and Inspection Service</td>
<td>Consumer Safety Officer/Enforcement, Investigation and Analysis Officer(April -May,</td>
<td>Total: $175,847</td>
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<td>2007</td>
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<td>PI Amount: $175,847</td>
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<td>2008</td>
<td>USDA/Food Safety and Inspection Service</td>
<td>Consumer Safety Officer/Enforcement, Investigation and Analysis Officer (October 1-26,</td>
<td>Total: $144,631</td>
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<tr>
<td>2008</td>
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<td>PI Amount: $144,631</td>
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<tr>
<td>2008</td>
<td>National Cattlemen’s Beef Association on behalf of the Cattlemen’s Beef</td>
<td>Tracing pathogen contamination through the post-harvest environment</td>
<td>Total: $61,400</td>
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<td>PI Amount: $61,400</td>
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<tr>
<td>2008</td>
<td>National Cattlemen’s Beef Association on behalf of the Cattlemen’s Beef Board and Texas Beef Council</td>
<td>Survey of pathogen interventions and best practices used by beef harvesters and processors</td>
<td>Total: $50,000</td>
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<td>2008</td>
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<td>PI Amount: $50,000</td>
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<tr>
<td>2008</td>
<td>National Cattlemen’s Beef Association on behalf of the Cattlemen’s Beef Board and Texas Beef Council</td>
<td>Escherichia coli O157:H7 and Salmonella spp. risk assessment during the production of marinated beef strips and roasts</td>
<td>Total: $60,000</td>
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<td>2008</td>
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<td>2008</td>
<td>National Cattlemen’s Beef Association on behalf of the Cattlemen’s Beef</td>
<td>Beef Nutrient Database Improvement Research — Phase 1</td>
<td>Total: $59,740</td>
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<td>2008</td>
<td>National Cattlemen’s Beef Association on behalf of the Cattlemen’s Beef Board</td>
<td>Evaluation of different temperatures and dwell times of hot water used to achieve maximum effectiveness in reducing levels of Salmonella Typhimurium, Escherichia coli O157:H7 and coliforms and Escherichia coli on beef carcass surfaces</td>
<td>Total: $65,080</td>
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<td>2008</td>
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### 5.8 IFS Faculty Grants Funded

<table>
<thead>
<tr>
<th>Year</th>
<th>Agency/Source</th>
<th>Title</th>
<th>Amount</th>
</tr>
</thead>
</table>
| 2009 | USDA/Food Safety and Inspection Service | Consumer Safety Officer/Enforcement, Investigation and Analysis Officer (October 2008) | Total: $157,719  
PI Amount: $157,719 |
| 2009 | USDA/Food Safety and Inspection Service | Consumer Safety Officer/Enforcement, Investigation and Analysis Officer (April – May 2009) | Total: $144,631  
PI Amount: $144,631 |
| 2009 | National Cattlemen’s Beef Association on behalf of the Cattlemen’s Beef Board | The impact of carcass trimming during the fabrication of subprimals on the resultant Escherichia coli O157:H7 contamination level | Total: $43,000  
PI Amount: $43,000 |
| 2009 | National Cattlemen’s Beef Association on behalf of the Cattlemen’s Beef Board | Evaluation of Escherichia coli O157:H7 translocation and decontamination for beef vacuum packaged subprimals destined for non-intact use | Total: $79,000  
PI Amount: $79,000 |
| 2009 | National Cattlemen’s Beef Association on behalf of the Cattlemen’s Beef Board | Nutrient database improvement research phase 1B: Nutrient analysis of beef chuck cuts | Total: $66,460  
PI Amount: $66,460 |
| 2009 | National Cattlemen’s Beef Association on behalf of the Cattlemen’s Beef Board | Nutrient database improvement research phase 2: Collection, sample preparation and proximate analysis of rib and plate cuts | Total: $73,884  
PI Amount: $73,884 |
| 2006 | Keeton, Jimmy T. | National Cattlemen’s Beef Association | Sustained Activity Interventions for Further Reductions of Salmonella and Escherichia coli O157:H7 on Beef Carcasses and in Ground Beef | Total: $60,975  
PI Amount: $60,975 |
| 2006 | California Dried Plum Board | Evaluation of Dried Plum Powder in Meat Products Destined for Convenience and Foodservice Outlets | Total: $45,813  
PI Amount: $45,813 |
| 2008 | American Meat Institute Foundation | A National Survey of the Nitrite/ Nitrate Concentrations in Cured Meat Products and Non-meat Foods Available at Retail | Total: $112,058  
PI Amount: $112,058 |
## 5.8 IFS Faculty Grants Funded

<table>
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<tr>
<th>PI Name</th>
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<tr>
<td>Kubena, Karen S. 2006</td>
<td>USDA ERS FANRP</td>
<td>Parental Time, Income, Role Strain and Children’s Nutrition</td>
<td>$1,031,630</td>
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<td>Lupton, Joanne R. 2006</td>
<td>National Space Biomedical Research Institute</td>
<td>PhD training program in critical areas of space life sciences</td>
<td>$1,031,630</td>
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<tr>
<td>2007(Co-PI)</td>
<td>National Institutes of Health, NCI</td>
<td>Simultaneous gene expression analysis of coding and non-coding RNAs in colon cancer prevention</td>
<td>$200,000</td>
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<tr>
<td>2007(Co-PI)</td>
<td>National Institutes of Health, NCI</td>
<td>Colonic cytokinetics and cell signaling: dietary effects</td>
<td>$1,785,880</td>
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<tr>
<td>2008(Co-PI)</td>
<td>American Institute for Cancer Research</td>
<td>Ability of n-3 fatty acids to influence colon tumor formation by modulating estrogen action</td>
<td>$165,000</td>
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<td>2009(Co-PI)</td>
<td>National Institutes of Health</td>
<td>Gene Expression Analysis of Coding and Non-coding RNAs in Colon Cancer Prevention</td>
<td>$439,500</td>
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<td>Miller, Rhonda K. 2006</td>
<td>Micro Analytics</td>
<td>Lingering Beef Odor</td>
<td>$2,000</td>
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<td>2006</td>
<td>Swift</td>
<td>Enhanced Pork Consumer</td>
<td>$10,000</td>
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<td>2006</td>
<td>NCBA</td>
<td>Measuring Stress in Beef</td>
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<td>2006</td>
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<td>Tortilla Flavor</td>
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<td>2006</td>
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<td>Natural Beef</td>
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5.8 IFS Faculty Grants Funded

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<tr>
<th>Year</th>
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<th>Title</th>
<th>Amount</th>
</tr>
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<tr>
<td>2006</td>
<td>NCBA</td>
<td>National Beef Tenderness Survey</td>
<td>Total: $115,000 PI Amount: $5,000</td>
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<td>2006</td>
<td>NCBA</td>
<td>Muscle for Beef Fajitas</td>
<td>Total: $11,400</td>
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<td>2006</td>
<td>NCBA</td>
<td>Shear Force Determinations</td>
<td>Total: $6,000 PI Amount: $6,000</td>
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<td>2007</td>
<td>NCBA</td>
<td>Dry-aging of Beef for Retail</td>
<td>Total: $138,056 PI Amount: $28,800</td>
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<td>2007</td>
<td>NCBA</td>
<td>Marbling and Sensory for Beef fed Brewer’s Distilled Grains</td>
<td>Total: $49,326 PI Amount: $9,830</td>
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<td>2007</td>
<td>NCBA</td>
<td>Dark Cutting Beef</td>
<td>Total: $30,000 PI Amount: $12,000</td>
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<td>2007</td>
<td>TBC</td>
<td>Dark Cutting Beef</td>
<td>Total: $30,000 PI Amount: $12,000</td>
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<td>2007</td>
<td>NCBA</td>
<td>Tannis to Improve Beef Safety</td>
<td>Total: $97,053 PI Amount: $2,000</td>
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<td>2007</td>
<td>BIT</td>
<td>Natural Beef-2nd year</td>
<td>Total: $100,000 PI Amount: $10,000</td>
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<td>2007</td>
<td>NPB</td>
<td>Pork Benchmark Study-yr 1</td>
<td>Total: $474,288 PI Amount: $184,987</td>
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<td>2007</td>
<td>NPB</td>
<td>Pork Benchmark Study-yr 2</td>
<td>Total: $474,288 PI Amount: $184,987</td>
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<th>Agency</th>
<th>Title</th>
<th>Amount</th>
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<tbody>
<tr>
<td>2008</td>
<td>NPB</td>
<td>Shear Force Determinations</td>
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<td>2007</td>
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<td>Student Experimental Learning with Prairie View A&amp;M University</td>
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<td>2008</td>
<td>NPB</td>
<td>Pork Benchmark Study-yr 2</td>
<td>Total: $474,288 PI Amount: $184,987</td>
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### 5.8 IFS Faculty Grants Funded

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<tr>
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<tr>
<td>2008</td>
<td>ARI</td>
<td>ARI RFI and Carcass Assessment</td>
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<td>2008</td>
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<td>Allergens</td>
<td>$45,825</td>
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<td>2008</td>
<td>Sysco</td>
<td>Warner-Bratzler shear force</td>
<td>$12,000</td>
<td>$12,000</td>
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<td>2008</td>
<td>Sysco</td>
<td>Shear force of Bonsmara 12 muscles</td>
<td>$12,810</td>
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<td>2008</td>
<td>TBC</td>
<td>Baby Beef Chemical Analyses</td>
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<td>Cargill</td>
<td>Cargill Sensory</td>
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<td>2008</td>
<td>Castillo</td>
<td>Irradiated Spinach Sensory</td>
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<td>2008</td>
<td>NolanRyan</td>
<td>Nolan Ryan NRI Shears</td>
<td>$13,650</td>
<td>$7,200</td>
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<td>2008</td>
<td>Osburn</td>
<td>Lowder Sensory</td>
<td>$1,650</td>
<td>$1,650</td>
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<tr>
<td>2008</td>
<td>ReadyPak</td>
<td>HEB Spinach/Lettuce Sensory</td>
<td>$8,800</td>
<td>$8,800</td>
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<tr>
<td>2008</td>
<td>Santa Gertrudis Breeders International</td>
<td>Shear Force determinations</td>
<td>$1400</td>
<td>$1400</td>
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<td>2008</td>
<td>Quantum</td>
<td>Shear Force determinations</td>
<td>$120</td>
<td>$120</td>
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<td>2008</td>
<td>American Brahman Breeders</td>
<td>Shear Force determinations</td>
<td>$800</td>
<td>$800</td>
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<td>2008</td>
<td>NCBA</td>
<td>Marbling and Sensory for Beef fed Brewer’s Distilled Grains</td>
<td>$49,326</td>
<td>$9,830</td>
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### 5.8 IFS Faculty Grants Funded

<table>
<thead>
<tr>
<th>PI</th>
<th>Agency/Source</th>
<th>Title</th>
<th>Amount</th>
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<tbody>
<tr>
<td>Moreira, Rosana G.</td>
<td>Crisman Institute</td>
<td>Refining of Heavy Oils through E-Beam Thermal Cracking</td>
<td>Total: $150,000</td>
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<td>2007</td>
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<td>TOTAL Inc.</td>
<td>Thermal Cracking of Heavy Oil</td>
<td>Total: $100,000</td>
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<td>PI Amount: $100,000</td>
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<tr>
<td>Murano, Peter S.</td>
<td>Texas Department of State Health Services</td>
<td>Design, Implementation, Feasibility, and Impact of a Nutrition Education Intervention Centered on the Revised WIC Food Packages</td>
<td>Total: $225,000</td>
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<td>2008</td>
<td>WIC Division</td>
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<td>PI Amount: $225,000</td>
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<td></td>
<td></td>
<td>Design, Implementation, and Evaluation of National Survey Pre- and Post-Rollout of Revised WIC Food Packages</td>
<td>Total: $409,175</td>
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<td>PI Amount: $409,175</td>
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<tr>
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<td></td>
<td>Design, Implementation, and Evaluation of Texas Survey Pre- and Post-Rollout of Revised WIC Food Packages</td>
<td>Total: $271,000</td>
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<td>PI Amount: $271,000</td>
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## 5.8 IFS Faculty Grants Funded

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<tbody>
<tr>
<td>2009</td>
<td>Texas Department of State Health Services WIC Division</td>
<td>Design, Implementation, and Evaluation of National Survey Pre- and Post-Rollout of Revised WIC Food Packages</td>
<td>Total: $445,879, PI Amount: $445,879</td>
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<td>2009</td>
<td>USDA Food and Nutrition Service</td>
<td>Whole Grain Consumption in Schools: Environmental Scan and Strategies to Facilitate Consumption</td>
<td>Total: $256,416, PI Amount: $256,416</td>
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<tr>
<td>2010</td>
<td>USDA National Institute of Food and Agriculture (formerly CSREES)</td>
<td>Development and evaluation of nutrition and physical activity intervention strategies in schools and clinical settings</td>
<td>Total: $500,000, PI Amount: $500,000</td>
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<td>2008</td>
<td>USAID TAM50</td>
<td>Enterosorbent intervention therapies for populations at risk for aflatoxin-related diseases. The major goal of this research is to provide an innovative strategy that will improve prevention and management of acute and chronic aflatoxicosis in Ghana, West Africa</td>
<td>Total: $180,000, PI Amount: $180,000</td>
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<tr>
<td>2008</td>
<td>NIH SBIR</td>
<td>Remediation process for aflatoxin contaminated foods. The major objective of this work is to confirm the safety and efficacy of aflatoxin extraction processes from contaminated oilseeds</td>
<td>Total: $40,000, PI Amount: $40,000</td>
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<td>2007(Co-PI)</td>
<td>Advanced Technology Program of the National Institute of Standards and Technology (NIST)</td>
<td>Development and Evaluation of Flat Panel X-ray Source</td>
<td>Total: $2,000,000, PI Amount: $2,000,000</td>
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### 5.8 IFS Faculty Grants Funded

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<tbody>
<tr>
<td>2007</td>
<td>Water Environment Research Foundation</td>
<td>Disinfecting and Stabilizing Biosolids Using E-beam and Chemical Oxidants</td>
<td>$183,903</td>
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<td>2007</td>
<td>DHS/ National Center for Food Protection and Defense-University of Minnesota</td>
<td>Concentrating bacterial spores from milk and juices using dielectrophoresis based microfluidic capture systems</td>
<td>$230,000</td>
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<td>2008</td>
<td>STTR Program – Department of Homeland Security</td>
<td>Cold Cathode Radiation for blood</td>
<td>$147,903</td>
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<td>2009</td>
<td>State of Texas Emerging Technology Fund</td>
<td>Automated Pathogen Detection System for Drinking Water Analysis</td>
<td>$230,000</td>
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<td>2006</td>
<td>Texas Department of Agriculture</td>
<td>Coating Cottonseed with Anti-fungal Agent to Prevent Aflatoxin Production during Storage</td>
<td>$20,000</td>
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<td>2006</td>
<td>US Grains Council</td>
<td>Training of South East Asia Aquaculture Feed Industry Personal</td>
<td>$16,500</td>
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<td>2007</td>
<td>U.S. State Department, The National Academies</td>
<td>Establishment of Extrusion Center at Institute of Food Science and Technology, University of Agriculture, Faisalabad, Pakistan</td>
<td>$709,000</td>
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## 5.8 IFS Faculty Grants Funded

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<tr>
<td>2007</td>
<td></td>
<td>American Soybean Association</td>
<td>Training of Russian Soyfoods Industry Personals</td>
<td>Total: 13,500 PI Amount: $13,500</td>
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<td>2008</td>
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<td>American Soybean Association</td>
<td>Training of Chinese Aquaculture Feed Industry Personals</td>
<td>Total: 17,000 PI Amount: $17,000</td>
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<td>2008</td>
<td></td>
<td>Skretting</td>
<td>Training of Canadian Aquaculture Feed Industry Personals</td>
<td>Total: 18,200 PI Amount: $18,200</td>
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<tr>
<td>2008</td>
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<td>United Soybean Board</td>
<td>Increasing Metabolizable Energy in Soybean Meal</td>
<td>Total: 50,000 PI Amount: $50,000</td>
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<tr>
<td>2007</td>
<td>Savell, Jeffrey W.</td>
<td>National Cattlemen’s Beef Association on behalf of the Cattlemen’s Beef Board</td>
<td>National market cow and bull beef quality audit -- 2007: A survey of producer-related defects in market cows and bulls</td>
<td>Total: 117,100 PI Amount: $117,100</td>
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### 5.8 IFS Faculty Grants Funded

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<tr>
<td>2007</td>
<td>American Meat Institute</td>
<td>Evaluation of alternative cooking and cooling procedures for large, intact meat products to achieve lethality and stabilization microbiological performance standards Foundation</td>
<td>Total: 70,500</td>
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<td>PI Amount: $70,500</td>
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<td>2007</td>
<td>National Cattlemen’s Beef Association on behalf of the Cattlemen’s Beef Board</td>
<td>Tenderness, flavor, and yield assessments of dry aged beef</td>
<td>Total: 60,000</td>
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<td>PI Amount: $60,000</td>
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<tr>
<td>2007</td>
<td>National Cattlemen’s Beef Association on behalf of the Cattlemen’s Beef Board</td>
<td>Non-Conforming Products Symposium</td>
<td>Total: 18,500</td>
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<td>PI Amount: $18,500</td>
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<tr>
<td>2008</td>
<td>National Cattlemen’s Beef Association on behalf of the Cattlemen’s Beef Board</td>
<td>Evaluating the impact of gender, fatness, muscling and weight on the cutability of Yield Grade 4 beef carcasses</td>
<td>Total: 60,000</td>
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<td>PI Amount: $60,000</td>
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<tr>
<td>2008</td>
<td>National Cattlemen’s Beef Association on behalf of the Cattlemen’s Beef Board</td>
<td>Tracing pathogen contamination through the post-harvest environment</td>
<td>Total: 61,400</td>
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<td>PI Amount: $61,400</td>
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<td>2008</td>
<td>National Cattlemen’s Beef Association on behalf of the Cattlemen’s Beef Board and Texas Beef Council</td>
<td>Survey of pathogen interventions and best practices used by beef harvesters and processors</td>
<td>Total: 50,000</td>
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<td></td>
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<td>PI Amount: $50,000</td>
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<tr>
<td>2008</td>
<td>National Cattlemen’s Beef Association on behalf of the Cattlemen’s Beef Board</td>
<td>Merchandising strategies for merchandizing heavy-weight beef subprimals</td>
<td>Total: 60,000</td>
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<td>PI Amount: $60,000</td>
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<th>PI</th>
<th>Agency/Source</th>
<th>Title</th>
<th>Amount</th>
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<tbody>
<tr>
<td>2008</td>
<td>National Cattlemen’s Beef Association on behalf of the Cattlemen’s Beef Board and Texas Beef Council</td>
<td>Escherichia coli O157:H7 and Salmonella spp. risk assessment during the production of marinated beef strips and roasts</td>
<td>Total: 60,000</td>
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<td></td>
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<td>PI Amount:</td>
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</table>
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<tr>
<th>Year</th>
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<th>Amount</th>
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</thead>
<tbody>
<tr>
<td>2008</td>
<td>National Cattlemen's Beef Association on behalf of the Cattlemen's Beef Board</td>
<td>Beef Nutrient Database Improvement Research — Phase 1</td>
<td>$60,000</td>
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<tr>
<td>2008</td>
<td>Intervet, a part of Schering-Plough</td>
<td>Retail cutting yields of subprimals from cattle treated with Zilmax</td>
<td>Total: 9,600&lt;br&gt;Pi Amount: $9,600</td>
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<tr>
<td>2008</td>
<td>National Cattlemen's Beef Association on behalf of the Cattlemen's Beef Board</td>
<td>Evaluation of different temperatures and dwell times of hot water used to achieve maximum effectiveness in reducing levels of <em>Salmonella</em> Typhimurium, <em>Escherichia coli</em> O157:H7 and coliforms and <em>Escherichia coli</em> on beef carcass surfaces</td>
<td>Total: $65,080&lt;br&gt;Pi Amount: $65,080</td>
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<tr>
<td>2009</td>
<td>National Cattlemen's Beef Association on behalf of the Cattlemen's Beef Board</td>
<td>The impact of carcass trimming during the fabrication of subprimals on the resultant <em>Escherichia coli</em> O157:H7 contamination level</td>
<td>Total: $43,000&lt;br&gt;Pi Amount: $43,000</td>
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<td>2009</td>
<td>National Cattlemen's Beef Association on behalf of the Cattlemen's Beef Board</td>
<td>Evaluation of <em>Escherichia coli</em> O157:H7 translocation and decontamination for beef vacuum packaged subprimals destined for non-intact use</td>
<td>Total: $79,000&lt;br&gt;Pi Amount: $79,000</td>
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<tr>
<td>2009</td>
<td>National Cattlemen's Beef Association on behalf of the Cattlemen's Beef Board</td>
<td>Nutrient database improvement research phase 1B: Nutrient analysis of beef chuck cuts</td>
<td>Total: $66,460&lt;br&gt;Pi Amount: $66,460</td>
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<tr>
<td>2009</td>
<td>National Cattlemen’s Beef Association on behalf of the Cattlemen’s Beef Board</td>
<td>Nutrient database improvement research phase 2: Collection, sample preparation and proximate analysis of rib and plate cuts</td>
<td>Total: $73,884&lt;br&gt;Pi Amount: $73,884</td>
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<tr>
<td>2009</td>
<td>Intervet, a part of Schering-Plough</td>
<td>Retail yields of subprimals from Choice and Select (treat and control) native steers</td>
<td>Total: $24,000&lt;br&gt;Pi Amount:</td>
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<tr>
<td>PI</td>
<td>Agency/Source</td>
<td>Title</td>
<td>Amount</td>
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<tr>
<td>Smith, S. B</td>
<td>USDA National Research Initiative Grants Program</td>
<td>Mitochondrial Biogenesis in Pigs</td>
<td>$24,000</td>
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<td>2007(Co-PI)</td>
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<td>Total: $80,000</td>
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<td>2009(Co-PI)</td>
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<td>Sturino, J. M.</td>
<td>NIH/NCI</td>
<td>Nutrition, Biostatistics and Bioinformatics</td>
<td>Total: $2,700,000</td>
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<td>2006(Co-PI)</td>
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<td>PI Amount: $2,700,000</td>
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<td></td>
<td>2007(Co-PI)</td>
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<td>PI Amount: $148,000</td>
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<td>International Research Travel Assistance Grant (IRTAG)</td>
<td>Exopolysaccharide Production in <em>Streptococcus thermophilus</em></td>
<td>Total: $2,750</td>
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<td>2007</td>
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<td>PI Amount: $2,750</td>
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<td></td>
<td>Endowed William Allen Chair in Nutrition (Dr. Joanne Lupton, NFSC)</td>
<td>Research Assistantship Grants (one of six equal donations awarded)</td>
<td>Total: $25,000</td>
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<td>2007</td>
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<td>PI Amount: $25,000</td>
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<td></td>
<td>Industry Sponsor #1</td>
<td>Novel applications for calcium aluminosilicate</td>
<td>Total: $73,000</td>
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<td></td>
<td>2008</td>
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<td>PI Amount: $73,000</td>
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## 5.8 IFS Faculty Grants Funded

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<tbody>
<tr>
<td>2008</td>
<td>Texas AgriLife Research</td>
<td>BioLog OmniLog PM (Permanent University Fund(PUF) Disbursement)</td>
<td>Total: $45,000</td>
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<td>PI Amount: $45,000</td>
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<tr>
<td>2009</td>
<td>Industry Sponsor #1</td>
<td>Novel applications for calcium aluminosilicate</td>
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<td>2009</td>
<td>Texas AgriLife Research</td>
<td>Dionex ICS 3000 HPAC FY09 (Bioenergy Exceptional Item Disbursement)</td>
<td>Total: $25,000</td>
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<td>PI Amount: $25,000</td>
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<td>2009</td>
<td>National Science Foundation</td>
<td>Bioengineering and Bioinformatics Summer Institutes (BBSI) Program</td>
<td>Total: $600,000</td>
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<tbody>
<tr>
<td>Talcott, Stephen B.</td>
<td>Bossa Nova Beverage Group</td>
<td>Processing and phytochemical factors influencing fruit quality</td>
<td>Total: $240,000</td>
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<td>2008</td>
<td>NIH, NCCAM</td>
<td>Protective Roles of Grape-Derived Polyphenols in Alzheimer's Disease</td>
<td>Total: $30,000</td>
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<tr>
<td>2008</td>
<td>NIH, NCCAM</td>
<td>Center for CAM Research on Autoimmune and Inflammatory Diseases</td>
<td>Total: $10,000</td>
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<th>Title</th>
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<tr>
<td>2008</td>
<td>National Mango Board</td>
<td>Health Benefits of Mangos</td>
<td>$89,752</td>
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<tr>
<td>2008</td>
<td>National Mango Board</td>
<td>Health Benefits of Mangos in a Human Clinical Trial</td>
<td>$267,000</td>
<td>$267,000</td>
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<tr>
<td>2009</td>
<td>Bossa Nova Beverage Group (Sunny Delight)</td>
<td>Evaluation of retail products for reduced inflammation and cardiovascular protection in a human clinical trial</td>
<td>$120,000</td>
<td>$120,000</td>
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<tr>
<td>2008</td>
<td>National Cattlemen’s Beef Association</td>
<td>Determination of antimicrobial mechanisms of hot water and L-lactic acid carcass interventions against Escherichia coli O157:H7</td>
<td>$35,015</td>
<td>$35,015</td>
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<td>2006(Co-PI)</td>
<td>Turner, Nancy D.</td>
<td>AICR</td>
<td>Fish oil and pectin enhances apoptosis in colonocytes via inhibition of PGE2 and PPAR delta signaling and promotion of death receptor pathway</td>
<td>$25,000</td>
<td>$25,000</td>
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<td>2006(Co-PI)</td>
<td>NSBRI</td>
<td>Ph.D. training program in critical areas of space life sciences</td>
<td>$2,133,178</td>
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<tbody>
<tr>
<td>2006 (Co-PI)</td>
<td>NIH/NCI</td>
<td>Nutrition, biostatistics and bioinformatics</td>
<td>Total: $2,427,495</td>
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<td>2006</td>
<td>USDA/ARS</td>
<td>Sorghum bioactive constituents as colon cancer chemoprotectants</td>
<td>Total: $32,000</td>
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<td>2006</td>
<td>USDA/VFIC</td>
<td>Isolation and identification of quercetin and quercetin metabolites in plasma, urine, feces and liver</td>
<td>Total: $42,000</td>
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<tr>
<td>2007</td>
<td>USDA/ARS</td>
<td>Sorghum bioactive constituents as colon cancer chemoprotectants</td>
<td>Total: $32,000</td>
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<td>2007</td>
<td>CSREES/VFIC</td>
<td>Quercetin’s role in the regulation of Phase I and Phase II enzyme expression patterns</td>
<td>Total: $24,000</td>
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<td>2008</td>
<td>CSREES/VFIC</td>
<td>Stone fruit bioactives as colon inflammation suppressors</td>
<td>Total: $34,000</td>
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<tr>
<td>2009</td>
<td>USDA/CSREES/VFIC</td>
<td>Stone fruit bioactives – inflammatory mediators operating through toll-like receptors?</td>
<td>Total: $22,000</td>
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</table>
NAME: Gary R. Acuff
POSITION TITLE: Professor and Head

EDUCATION / TRAINING (Begin with baccalaureate or other initial professional education)

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<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abilene Christian University</td>
<td>B.S.</td>
<td>1980</td>
<td>Biology</td>
</tr>
<tr>
<td>Texas A&amp;M University</td>
<td>M.S.</td>
<td>1982</td>
<td>Food Science &amp; Technology (emphasis in food microbiology)</td>
</tr>
<tr>
<td>Texas A&amp;M University</td>
<td>Ph.D.</td>
<td>1985</td>
<td>Food Science &amp; Technology (emphasis in food microbiology)</td>
</tr>
</tbody>
</table>

Positions, Employment, Other Experience

1980-1985 Instructor, Department of Animal Science, Texas A&M University
1985-1990 Lecturer/Research Associate, Department of Animal Science, Texas A&M University
1990-1992 Assistant Professor, Department of Animal Science, Texas A&M University
1992-1999 Associate Professor, Department of Animal Science, Texas A&M University
1994-1997 Chair, Faculty of Food Science, Texas A&M University
1998-2004 Section Leader, Food Science Section, Department of Animal Science, Texas A&M University
1999 to date Professor, Department of Animal Science, Texas A&M University
2001 to date Faculty Fellow, Texas AgriLife Research
2004 to 2005 Interim Head, Department of Animal Science, Texas A&M University
2005 to date Head, Department of Animal Science, Texas A&M University

Key Research Areas
Food Microbiology

Professional Memberships
American Society for Microbiology
Society for Applied Microbiology
International Association for Food Protection

Honors / Awards Received (Lifetime, list date)
Distinguished Fellow. Rapid Methods and Automation in Microbiology Workshop. July 11-18, 1991. Kansas State University, Manhattan, Kansas. Certified by the American Society for Microbiology
Fish Camp Namesake. Selected by Texas A&M University students as a namesake for freshman orientation camp – Camp Acuff. 1998
Faculty Fellow. Texas AgriLife Research. January, 2001

Teaching, Research and Service (3-yr Summary)
A. Courses Taught, Semester, Cr Hrs, Number of Students Enrolled – None since 2006.

Graduate Degrees – Student Name, Degree Earned, Placement
Elisa Cabrera-Diaz, Ph.D., Now working for the University of Guadalajara

B. Three-year peer-reviewed publications (in chronological order), grants and intellectual property

Books, Book Chapters, White Papers, etc.

Peer-reviewed Journal Articles


Presentations / Abstracts – None for Last 3 Years

Grants (Funding Agency, Title, Funding Amount, Time Frame) – None for Last 3 Years

Intellectual Property, Patents, Software, etc – None for Last 3 Years

C. Service (3-yr Summary)

Department, College, University

National / International Organizations
American Council on Science and Health (www.acsh.org), Board of Scientific Advisors.
International Association for Food Protection, Executive Board (2004-2009), President (2007)
Editorial Work
None since 2006.
NAME: Joseph M. Awika

POSITION TITLE: Assistant Professor

EDUCATION / TRAINING (Begin with baccalaureate or other initial professional education)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
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</thead>
<tbody>
<tr>
<td>Egerton University, Kenya</td>
<td>B.S</td>
<td>1996</td>
<td>Dairy Science &amp; Tech</td>
</tr>
<tr>
<td>Texas A&amp;M University, College Station, TX</td>
<td>PhD</td>
<td>2003</td>
<td>Food Science &amp; Technology</td>
</tr>
</tbody>
</table>

Positions, Employment, Other Experience

2006 – 2008  Assistant Professor, University of Missouri, Columbia, MO

2004 – 2005  Assistant Professor, Arkansas State University, AR (2004 – 2005)

2004-2006  Adjunct Assistant Professor, University of Arkansas, Fayetteville, AR (2004-2006)

Key Research Areas (Bulleted list)
- Cereal Processing and Quality
- Chemistry

Professional Memberships
- Institute of Food Technologists (IFT) 1998 - present.
- American Chemical Society (ACS) 2003 - present

Honors / Awards Received (Lifetime, list date)

Texas A&M:
- 2002: Tom Slick Senior Graduate Research Fellowship, Texas A&M University (*College of Agriculture*)
- 2002-2003: Outstanding Graduate Student, Food Science &Tech. Intercollegiate Faculty Award, Texas A&M University
- 2002-2003: Academic Excellence Award, Food Science & Tech., Texas A&M University
- 2001-2002: Academic Excellence Award, Food Science & Tech., Texas A&M University
• National:
  • 2002-2003: American Association of Cereal Chemists Foundation Fellowship
  • 2001-2002: Bill Doherty Memorial Fellowship (American Association of Cereal Chemists)
  • 2000-2001: American Association of Cereal Chemists Graduate Fellowship

• Regional/State:
  • 2000-2001: Institute of Food Technologists (Longhorn) Scholarship
  • 1999-2000: Institute of Food Technologists (Longhorn) Scholarship
  • 2000-2001: Texas Food Processors Association Scholarship
  • 1999-2000: Texas Food Processors Association Scholarship

Teaching, Research and Service (3-yr Summary)

A. Courses Taught, Semester, Cr Hrs, Number of Students Enrolled
   Graduate: Food Carbohydrates (FSTC 631)
            Graduate Seminar (FSTC 681)
   Undergraduate: Food Product Development (FSTC 401)
                 Fundamentals of Baking (FSTC 305)

Graduate Degrees – Student Name, Degree Earned, Placement (Name of Employer or Institution)

B. Three-year peer-reviewed publications (in chronological order), grants and intellectual property

Books, Book Chapters, White Papers, etc

Peer-reviewed Journal Articles


Presentations / Abstracts

Invited presentations


National meeting Abstracts


2. Ojwang,LO; Awika JM. 2009. Effect of bisulfite on color properties of 3-deoxyanthocyanins at different pH levels. AACC International Annual meeting, Baltimore, MD.

3. Yang, Liyi; Awika, JM. 2009. Inhibitory effect of sorghum 3-deoxyanthocyanin structure on esophageal cancer cell proliferation *in vitro*. AACC International Annual meeting, Baltimore, MD


Grants (Funding Agency, Title, Funding Amount, Time Frame)

- Texas Wheat Producers Board, Developing efficient methods to evaluate wheat for tortilla production, $20,000, 09/2009 - 08/2010
- TAMU International Programs Office, Improving micronutrient bioavailability and quality of grain-based staple foods in Kenya, $1,400, 05/2009 - 04/2010

Intellectual Property, Patents, Software, etc

C. Service (3-yr Summary)

Department, College, University

- Advisor: Food Science Association, University of Missouri Columbia
- The 2008 Chair of the University of Missouri section of American Chemical Society

National / International Organizations

Editorial Work
BIOGRAPHICAL SKETCH

NAME: Castell-Perez, Maria Elena

POSITION TITLE: Professor of Food Engineering

eRA COMMONS USER NAME: ecastell

EDUCATION / TRAINING (Begin with baccalaureate or other initial professional education)

<table>
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<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
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<tbody>
<tr>
<td>Campinas State University</td>
<td>BSc.</td>
<td>1976-1981</td>
<td>Food Engineering</td>
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<tr>
<td>Michigan State University</td>
<td>M.S.</td>
<td>1982-1984</td>
<td>Agricultural Engineering</td>
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<tr>
<td>Michigan State University</td>
<td>M.A.</td>
<td>1984-1986</td>
<td>Spanish Literature</td>
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<tr>
<td>Michigan State University</td>
<td>Ph.D.</td>
<td>1984-1990</td>
<td>Agricultural Engineering</td>
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<tr>
<td>Michigan State University</td>
<td>ABD</td>
<td>1986-1990</td>
<td>Spanish Literature</td>
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Positions, Employment, Other Experience

2005-present Texas A&M University, Dept. of Biological and Agricultural Engineering, Professor
1998-2004 Director, Center for Food Process and Engineering, ISFE, Texas A&M University
2000-2005 Texas A&M University, Dept. of Biological and Agricultural Engineering, Associate Professor
1996-2000 Texas A&M University, Dept. of Biological and Agricultural Engineering, Assistant Professor
1991-1996 Alabama A&M University, Department of Food and Animal Industries, Assistant Professor
1980-1981 Plant Engineer, Dairy Industry Los Teques, Venezuela

Key Research Areas (Bulleted list)
- Rheology
- Material properties
- Packaging
- Food safety
- Food processing operations

Professional Memberships
- Institute of Food Technologists (IFT) – 1987-present
- American Society of Biological and Agricultural Engineering (ASABE) – 1987-present
- Society of Rheology – 1991-present
- Society of Women Engineers (SWE) – 1996-present

Honors / Awards Received (Lifetime, list date)
- Nominated for the COALS Vice Chancellor Excellence in Teaching Award – 2006.
- Nominated for the TEES Research Award – 2007.
- Alpha Epsilon Agricultural Engineering Society
- Sigma Delta Pi Spanish Language Honor Society
- Phi Beta Delta International Scholar Honor Society
- Phi Tau Sigma Food Science Honorary Society

Teaching, Research and Service (3-yr Summary)

A. Courses Taught, Semester, Cr Hrs, Number of Students Enrolled

<table>
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<tr>
<th>FALL 2006</th>
<th>Course</th>
<th>Credit Hours</th>
<th>No. Sections</th>
<th>No. of Students</th>
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<tr>
<td>BSEN 354 - Engineering Properties of Biological Materials</td>
<td>(3-2)</td>
<td>Two</td>
<td>37</td>
<td></td>
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<tr>
<td>AGSM 489 – AGSM Senior Capstone</td>
<td>(1)</td>
<td>Advisor of one team</td>
<td>3</td>
<td></td>
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<tr>
<td>BAEN 427/627 - Engineering Aspects of Packaging</td>
<td>(3)</td>
<td>1</td>
<td>10</td>
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<th>SPRING 2007</th>
<th>Course</th>
<th>Credit Hours</th>
<th>No. Sections</th>
<th>No. of Students</th>
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<tr>
<td>AGSM/FSTC 315 - Food Process Engineering Technology</td>
<td>(3-2)</td>
<td>Three</td>
<td>83</td>
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<tr>
<td>BAEN 440 – BAEN Senior Capstone</td>
<td>(2)</td>
<td>Advisor of one team</td>
<td>3</td>
<td></td>
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<tr>
<td>BAEN 620 – Food Rheology</td>
<td>(3)</td>
<td>1</td>
<td>6</td>
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<tr>
<th>FALL 2007</th>
<th>Course</th>
<th>Credit Hours</th>
<th>No. Sections</th>
<th>No. of Students</th>
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<tr>
<td>BSEN 354 - Engineering Properties of Biological Materials</td>
<td>(3-2)</td>
<td>Two</td>
<td>30</td>
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<tr>
<td>AGSM 489 – AGSM Senior Capstone</td>
<td>(1)</td>
<td>Advisor of one team</td>
<td>3</td>
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<tr>
<td>BAEN 439 – BAEN Senior Capstone</td>
<td>(1)</td>
<td>Advisor of one team</td>
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<th>SPRING 2008</th>
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<th>Credit Hours</th>
<th>No. Sections</th>
<th>No. of Students</th>
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<tr>
<td>AGSM/FSTC 315 - Food Process Engineering Technology</td>
<td>(3-2)</td>
<td>Three</td>
<td>85</td>
<td></td>
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<tr>
<td>BAEN 440 – BAEN Senior Capstone</td>
<td>(2)</td>
<td>Advisor of one team</td>
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### FALL 2008

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<tr>
<td>BAEN 354 - Engineering Properties of Biological Materials</td>
<td>(3-2)</td>
<td>Two</td>
<td>30</td>
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<tr>
<td>AGSM 489 – AGSM Senior Capstone</td>
<td>(1)</td>
<td>Advisor of one team</td>
<td>3</td>
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### SPRING 2009

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<th>Course</th>
<th>Credit Hours</th>
<th>No. Sections</th>
<th>No. of Students</th>
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<tbody>
<tr>
<td>AGSM/FSTC 315 - Food Process Engineering Technology</td>
<td>(3-2)</td>
<td>Five</td>
<td>90</td>
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<tr>
<td>BAEN 620 - Food Rheology</td>
<td>(3)</td>
<td>One</td>
<td>9</td>
</tr>
<tr>
<td>BAEN 440 – BAEN Senior Capstone</td>
<td>(2)</td>
<td>Advisor of one team</td>
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### FALL 2009

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<th>Course</th>
<th>Credit Hours</th>
<th>No. Sections</th>
<th>No. of Students</th>
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<tbody>
<tr>
<td>BAEN 354 - Engineering Properties of Biological Materials</td>
<td>(3-2)</td>
<td>Two</td>
<td>37</td>
</tr>
<tr>
<td>BAEN 439 – BAEN Senior Capstone</td>
<td>(2)</td>
<td>Advisor of one team</td>
<td>3</td>
</tr>
<tr>
<td>AGSM 489 – AGSM Senior Capstone</td>
<td>(2)</td>
<td>Advisor of one team</td>
<td>3</td>
</tr>
</tbody>
</table>

Graduate Degrees – Student Name, Degree Earned, Placement (Name of Employer or Institution)

a. Dr. Ezekiel M. Chimbombi, PhD. in Biological and Agricultural Engineering (Food Engineering emphasis). December 2009. Professor, Botswana College of Agriculture, Gaborone, Botswana.


c. Dr. Jaejoon Han, Ph.D. in Food Science and Technology. October 2006. Assistant Professor at the Department of Food Science and Biotechnology, Sungkyunkwan University, Korea. (January 2009-present).

B. Three-year peer-reviewed publications (in chronological order), grants and intellectual property

**Books:**


**Book Chapters:**


**Peer-reviewed Journal Articles:**


15. J. Han, M. E. Castell-Perez and R. G. Moreira. 2007. The Influence of Electron Beam Irradiation of Antimicrobial-Coated LDPE/Polyamide Films on Antimicrobial Activity and Film Properties. Lebensmittel-Wissenschaft und-Technologie/Food Science and Technology 40(9)1545-1554 (Accepted, Nov. 2006).


Presentations / Abstracts:


Invited presentations and lectures:


2. Castell-Perez, M.E. Applications of Engineering to Food Safety. 2007. E3 NSF program, Texas A&M University, College Station, TX, June 19.


Grants (Funding Agency, Title, Funding Amount, Time Frame):


4. USDA-NRI Equipment Grant. *A Rheometer for Characterization of Food and Other Materials*. Funds: $18,000. October 2007. PI.


C. Service (3-yr Summary)

**Department:**

1. Chair, BAEN Communications Committee (2008-present).
2. Chair, BAEN Capital Development Sub-Committee (2003-2009).
3. BAEN Undergraduate Curriculum Committee – member (2007-present).
4. AGSM Undergraduate Curriculum Committee – member 92007-present).

**University:**

2. Steering Committee Chair of TAMU’s Women Engineering Faculty Interest Group (WEFIG) – September 2005 – present.
3. Executive Committee member of the Interdisciplinary Graduate Faculty of Food Science – January 2009-present.
4. Executive Committee member of the Interdisciplinary Graduate Faculty of Food Science (Spring 2000 – 2004).

**National / International Organizations:**

2. Professional member of the Food Engineering Division (IFT). 1996-present.

**Editorial Work:**

NAME: Alejandro Castillo

POSITION TITLE: Associate Professor

EDUCATION / TRAINING (Begin with baccalaureate or other initial professional education)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
</tr>
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<tbody>
<tr>
<td>University of Guadalajara, Guadalajara, Mexico</td>
<td>Licenciate (B. Sc. Equivalent)</td>
<td>1978</td>
<td>Químico Farmacobiólogo Biology (maj.) Chemistry and Pharmacy (min)</td>
</tr>
<tr>
<td>University of Guadalajara, Guadalajara, Mexico</td>
<td>Specialty (M.A. equivalent)</td>
<td>1979</td>
<td>Sanitary Microbiology</td>
</tr>
<tr>
<td>University of Guadalajara, Guadalajara, Mexico</td>
<td>Master of Science</td>
<td>1992</td>
<td>Food Microbiology and Hygiene</td>
</tr>
<tr>
<td>Texas A&amp;M University</td>
<td>Doctor of Philosophy</td>
<td>1998</td>
<td>Food Science and Technology</td>
</tr>
<tr>
<td>Texas A&amp;M University</td>
<td>Post Doctoral Study</td>
<td>1999</td>
<td>Food Safety</td>
</tr>
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Positions, Employment, Other Experience

04/2002 to present: Associate Professor, Animal Science Department, Texas A&M University
05/2002 to present: Member of the Intercollegiate Faculty of Food Science, Texas A&M University
2000 to 2002: Adjunct Assistant Professor, Animal Science Department, Texas A&M University
2000 to 2002: Professor C, Department of Biology and Pharmacy, University of Guadalajara
1998 to 1999: Post Doctoral Research Associate, Animal Science Department, Texas A&M University
1996 to 1998: Research/Teaching Assistant, Animal Science Department, Texas A&M University
1990 to 1992: Associate Professor, Faculty of Chemical Sciences, University of Guadalajara
1990 to 1994: Chair of the Food Microbiology Section, Faculty of Chemical Sciences, University of Guadalajara
1990 to 1994: Coordinator of the Graduate Program on Food Microbiology and Hygiene, Faculty of Chemical Sciences, University of Guadalajara
1992 to 1999: Professor B (with leave of absence for Ph.D. studies at Texas A&M University, 1994-1998), University of Guadalajara
1984 to 1990: Assistant Professor,
1982 to 1984: Research Associate, Faculty of Chemical Sciences, University of Guadalajara
1979 to 1981: Teaching Assistant, Faculty of Chemical Sciences, University of Guadalajara
1978: Laboratory Technician, Clinical Laboratories, Autlán, Jalisco, Mexico

Key Research Areas (Bulleted list)

Professional Memberships
Honors / Awards Received (Lifetime, list date)
State Award to the Professional Merit, granted by the National Federation of Professional Boards. Mexico. Date granted: 07-29-1994

Teaching, Research and Service (3-yr Summary)

A. Courses Taught, Semester, Cr Hrs, Number of Students Enrolled
   - Microbiology of Foods (FSTC 606), Spring of 2007 (12 students), 2008 (16 students) and 2009 (17 students)

Graduate Degrees – Student Name, Degree Earned, Placement (Name of Employer or Institution)
   - Jack A. Neal, Ph. D. (2009), Placed at University of Houston
   - Mayra Marquez-Gonzalez, Ph. D. (2008), Placed at University of Guadalajara
   - Grihalakshmi Kakani, M. Sc. (2007), Pursuing Ph. D. at Texas A&M University

B. Three-year peer-reviewed publications (in chronological order), grants and intellectual property

Books, Book Chapters, White Papers, etc

Peer-reviewed Journal Articles
Cantaloupes and Bell Peppers. Journal of Food Protection. 70:655-660.


Presentations / Abstracts

• Cuervo, M. P., D. Rodrigues-Silva, J. Maxim and A. Castillo. 2009. Use of a Novel Device to Enable Irradiation of Fresh Cantaloupes by Electron Beam Irradiation. *International Association for Food Protection’s 5th European Symposium on Food Safety, 7-9 October 2009, Berlin, Germany.*

Grants (Funding Agency, Title, Funding Amount, Time Frame)

• NCBA. Sustained Activity Interventions for Further Reductions of Salmonella and *Escherichia coli* O157:H7 on Beef Carcasses and in Ground Beef. 60,975
• USDA/CSREES. Electron Beam Irradiation for Improving the Safety of Fruits and Vegetables. 69,450
• NCBA. Tracing pathogen contamination through the post-harvest environment. 69,000
• American Meat Institute Foundation. Evaluation of alternative cooking and cooling procedures for large, intact meat products to achieve lethality and stabilization microbiological performance standards. 74,500
• National Pork Board. Efficacy of novel food antimicrobial combinations for the in vitro control of the foodborne pathogen *Listeria monocytogenes*. 50,000
• NCBA. Evaluation of different temperatures and dwell times of hot water in reducing levels of *Salmonella Typhimurium* and *Escherichia coli* O157:H7 on beef carcass surfaces. 65,080
• NCBA. Determination of antimicrobial mechanisms of hot water and L-lactic acid carcass interventions against *Escherichia coli* O157:H7. 35,015
• USDA/CSREES. National Center For Electron Beam Research –Food Safety. 34,000 of a total award of 69,450
• USDA/NIFSI. Quantifying Microbial Risks during Growth of Produce. 60,000 of a total award of 400,000
• National Pork Board. Effects of Commercial Chilling Processes on the Survival of *Salmonella, Campylobacter coli* and *Yersinia* spp in Pork Variety Meats. 52,795

Intellectual Property, Patents, Software, etc

• The Maxim Electron Scatter Chamber. Patent in progress (Serial Number . 61/077,229)

C. Service (3-yr Summary)

Department, College, University

• Department of Animal Science, College of Agriculture and Life Sciences, Texas A&M University

National / International Organizations

Member of the Editorial Committee, *Journal of Food Protection* (2001-2008)

• Member of the Audio Visual Committee, International Association for Food Protection (IAFP), 2001 to date
• Member of the Program Committee, IAFP (1999-2001), reappointed through 2005, reappointed through 2008
• Member of the Scientific Committee for the International Food Safety Conference, Mexico, 1984-to date (Committee Chair for 1990, 1991, 1992 and 1993 meetings, International Food Safety Conference, Mexico)
• Chair of the IAFP’s Fruit and Vegetable Quality Professional Development Group (2008-2010)

Editorial Work
BIOGRAPHICAL SKETCH

NAME:  H. Russell Cross  POSITION TITLE:  Professor

eRA COMMONS USER NAME:  

EDUCATION / TRAINING (Begin with baccalaureate or other initial professional education)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
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<tbody>
<tr>
<td>University of Florida</td>
<td>B.S.</td>
<td>1966</td>
<td>Animal Science</td>
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<tr>
<td>University of Florida</td>
<td>M.S.</td>
<td>1969</td>
<td>Animal Science (Meats)</td>
</tr>
<tr>
<td>Texas A&amp;M University</td>
<td>Ph.D.</td>
<td>1972</td>
<td>Animal Science (Meats)</td>
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</table>

Positions, Employment, Other Experience

- Chief of Staff and Executive Vice President for Operations, Texas A&M University
- Deputy Vice Chancellor and Associate Dean, Agriculture and Life Sciences, Texas A&M University
- Associate Director, Texas Agricultural Experiment Station
- Executive Vice President, Food Safety/Government & Industry Affairs, National Beef Packing Co., Kansas City, MO
- President, Cross & Associates
- Vice President, DuPont Food Industry Solutions
- Chief Executive Officer, Future Beef Operations, L.L.C.
- Director of IDEXX Food Safety Net, Inc.
- Director of the Institute of Food Science and Engineering, Texas A&M University.
- Administrator, Food Safety and Inspection Service, USDA, Washington, D.C.
- Holder of E.M. Rosenthal Chair in Meat, Animal & Food Science, Texas A&M University.
- Head of Department of Animal Science, Texas A&M University, College Station, TX
- Professor and Section Leader of the Meats and Muscle Biology Section, Department of Animal Science, Texas A&M University, College Station, TX
- Research Leader, Meats, U.S. Meat Animal Research Center, USDA, Clay Center, NE
- Research Scientist, Meat Science Research Laboratory, ARS, USDA, Beltsville, MD
- Livestock & Meat Marketing Specialist, AMS, USDA, Washington, DC
- Meat Grader, AMS, USDA, Kansas City, MO

Key Research Areas (Bulleted list)

- Integrated food production systems
- Total quality management
- Marketing systems for red meat
- Safety of food products
- Antemortem and postmortem factors affecting meat quality
- Animal and carcass grading systems
- Growth and composition of animals and carcasses
- The role of meat in the human diet

Professional Memberships

- American Society of Animal Science
- American Meat Science Association
- Institute of Food Technologists
• Alpha Zeta
• Gamma Sigma Delta
• Phi Sigma
• Phi Tau Sigma
• Past Board Chairman, International Stockmen’s Educational Foundation
• Board Member, International Stockmen’s Educational Foundation
• Executive Director, International Meat & Poultry HACCP Alliance (1994-1997)
• Board member, American Meat Institute (2001-2002)
• Board member, National Meat Association (2001-2002)
• Board member, Texas Society for Biomedical Research (2005–2008)

Honors / Awards Received (Lifetime, list date)
• American Society of Animal Science Young Scientist Award, 1978
• American Society of Animal Science National Meat Research Award, 1983
• President of the American Meat Science Association, 1982-1983
• Deputy Chancellor Award for Team Research, Texas A&M, 1986
• George Strathearn Memorial Research Award, CA Beef Council, 1987
• Merchandiser of the Year Award, Texas Cattle Feeders Association, 1988
• Progressive Farmer, Man of the Year Award, 1989
• Distinguished Research Award, American Meat Science Association, 1990
• Educator of the Year Award, North American Meat Processors Assn., 1991
• Signal Service Award, American Meat Science Association, 1992
• Forbes Award, National Meat Association, 1996
• Distinguished Service Award, U.S. Meat Export Federation, 1998
• Industry Advancement Award, American Meat Institute, 1998
• R. C. Pollock Award, American Meat Science Association, 1999
• Hall of Fame Recipient, International Stockmen’s Education Foundation, 2002
• Meat Industry Hall of Fame Inductee, 2009

Teaching, Research and Service (3-yr Summary)
A. Courses Taught, Semester, Cr Hrs, Number of Students Enrolled
   ANSC 481, Section 502 – Senior Seminar, Fall 2009, 2 Credit Hrs., 20 students

B. Three-year peer-reviewed publications (in chronological order), grants and intellectual property
   N/A

C. Service (3-yr Summary)
   • Deputy Vice Chancellor and Associate Dean, Agriculture and Life Sciences, 2005-2008
   • Associate Director, Texas Agricultural Experiment Station, 2005-2008
   • Chief of Staff and Executive Vice President for Operations, Texas A&M University, 2008-2009
   • Chairman of the Athletics Task Force, 2009-2010

National / International Organizations
• Past Board Chairman, International Stockmen’s Educational Foundation
• Board Member, International Stockmen’s Educational Foundation
• Board member, Texas Society for Biomedical Research (2005–2008)
Editorial Work

- *The National Provisioner* Editorial Board member
BIOGRAPHICAL SKETCH

NAME: Tri Duong  
POSITION TITLE: Assistant Professor

eRA COMMONS USER NAME:  

EDUCATION / TRAINING (Begin with baccalaureate or other initial professional education)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
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<tbody>
<tr>
<td>Pennsylvania State University</td>
<td>B.S</td>
<td>2001</td>
<td>Biochemistry and Molecular Biology</td>
</tr>
<tr>
<td>University Park, PA</td>
<td></td>
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<tr>
<td>North Carolina State University</td>
<td>PhD</td>
<td>2008</td>
<td>Functional Genomics</td>
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<tr>
<td>Raleigh, NC</td>
<td></td>
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<tr>
<td>Washington State University</td>
<td>Postdoctoral</td>
<td>2008–2009</td>
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<tr>
<td>Pullman, WA</td>
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</tbody>
</table>

Positions, Employment, Other Experience

2001           Research Intern, Genomics Core Facility, Wistar Institute, Philadelphia, PA
2002           Research Assistant, Genomics Core Facility, Wistar Institute, Philadelphia, PA
2008-2009      Postdoctoral Research Associate, School of Molecular Biosciences, Washington State University, Pullman WA
2009-Present   Assistant Professor, Department of Poultry Science, Texas A&M University, College Station, TX

Key Research Areas (Bulleted list)

Functional Genomics of Lactic Acid Bacteria
Recombinant Protein Expression using Probiotic Lactic Acid Bacteria
Microbially Based Biotechnology Solutions for Agriculture and Health

Professional Memberships
American Society for Microbiology (ASM)
Institute of Food Technologists (IFT)
American Association for the Advancement of Science (AAAS) Poultry Science Association (PSA)

Honors / Awards Received (Lifetime, list date)

National Science Foundation IGERT Fellowship – 2002-2005
Institute of Food Technologists Student Association Achievement Award - 2005
North Carolina State University Genomics Fellowship – 2007
Courses Taught

<table>
<thead>
<tr>
<th>Year</th>
<th>Semester</th>
<th>Course</th>
<th>Course Title</th>
<th># Students</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>2010</td>
<td>Spring</td>
<td>POSC 429</td>
<td>Advanced Food Bacteriology</td>
<td>45</td>
<td>6 contact hrs/wk (4 Cr)</td>
</tr>
</tbody>
</table>

B. Three-year peer-reviewed publications (in chronological order), grants and intellectual property

**Book Chapters (2006-Present)**


**Peer-reviewed Journal Articles (2006-Present)**


Published Abstracts (2006-Present)


Patents (2006-Present)


C. Service (3-yr Summary)

Professional Organizations

Institute of Food Technologists, Biotechnology Division Abstract Reviewer, 2009


Editorial Work – Ad Hoc Reviews

Applied Microbiology, 2010

Applied Microbiology and Biotechnology, 2009

BIOGRAPHICAL SKETCH

NAME
Margaret D. Hardin

POSITION TITLE
Associate Professor of Food Microbiology

eRA COMMONS USER NAME (credential, e.g., agency login)

EDUCATION/TRAINING  (Begin with baccalaureate or other initial professional education, such as nursing, and include)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Florida, Gainesville, FL</td>
<td>B.S.</td>
<td>1978</td>
<td>Animal Science</td>
</tr>
<tr>
<td>North Carolina State University, Raleigh, NC</td>
<td>B.S.</td>
<td>1990</td>
<td>Agric. Education</td>
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<tr>
<td>University of Georgia, Athens, GA</td>
<td>M.S.</td>
<td>1992</td>
<td>Animal Science</td>
</tr>
<tr>
<td>Texas A&amp;M University, College Station, TX</td>
<td>Ph.D.</td>
<td>1995</td>
<td>Food Science &amp; Technology</td>
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</table>

Positions and Employment

- Associate Professor – Food Microbiology (2007 – present) – Texas A&M University; College Station, TX.
- Director – Food Safety and Quality Assurance (2005 –2007) – Boar’s Head Brand, Petersburg, VA
- Director- Microbiology & Quality Assurance (1995) – H&H Foods, Mercedes, TX.

Other Experience and Professional Memberships

- National Academies of Science - NRC FSIS Standing Committee on Use of Public Health Data in FSIS Food Safety Programs (2008 - present); Food Attribution Committee (2008-2009); Second In-Commerce Committee (2009)
- Texas Food Safety and Defense Task Force – (2009-present)
- American Meat Institute: Scientific Affairs Committee (2003-2007); Inspection Committee Co-Chair (2006/07)
- Food Safety Magazine – Editorial Advisory Board (2006 – present)
- International Journal of Food Microbiology – Editorial Board (2003 - present)
- American Society for Microbiology (member)
- Institute of Food Technologists (Food Microbiology: Member-at-large, Scientific Program Representative 2007-present, Chair-Elect Food Microbiology Division 2010; Muscle Foods Division)
- American Meat Science Association (QA 101 Committee Chair; Proposal Committee; Industry-Extension Committee)
- National Turkey Federation: Technical and Regulatory Committee (2000 - 07)

Teaching, Research, Service

A. Courses Taught, Cr. Hrs, Number of Students Enrolled
- Applied Food Microbiology (FSTC 497/697; 8-12 students/yr)
- Graduate Meat Science Seminar (ANSC 681; 10-20 students/yr)

B. Current year peer-reviewed publications (in chronological order)
Presentations/Abstracts

Presentations (3 yr summary):

- Hardin, Margaret D. Laboratory Diagnostics and Microbial Enumeration. Establishing Microbiological Criteria for Food Safety. The Borlaug Institute for International Agriculture, Texas AgriLife, Texas A&M University, August 26-28, 2009. College Station, TX.
- Hardin, Margaret D. Pathogen Testing Techniques and Methodologies. Establishing Microbiological Criteria for Food Safety. The Borlaug Institute for International Agriculture, Texas AgriLife, Texas A&M University, August 26, 2009. College Station, TX.
- Hardin, Margaret D. BioControl GDS Training. Establishing Microbiological Criteria for Food Safety. The Borlaug Institute for International Agriculture, Texas AgriLife, Texas A&M University, Sept 1-2, 2009. College Station, TX.
- Hardin, Margaret D. Rapid Methods for the Microbiological Analysis of Foods. Establishing Microbiological Criteria for Food Safety. The Borlaug Institute for International Agriculture, Texas AgriLife, Texas A&M University, September 2, 2009. College Station, TX.


• Hardin, Margaret D. Food Safety and BBQ. Texas A&M University BBQ 101 Shortcourse. May 6-8, 2008; May 12-14, 2009. College Station, TX.


Abstracts (3 yr summary):


• Brandt, A.L., M.D. Hardin, A. Castillo. K.B. Harris, J.T. Keeton, and T.M. Taylor. 2009. *In vitro* inhibition of *Listeria monocytogenes* with acidic calcium sulfate combined with nisin or Epsilon-poly-L-lysine. Poster Presentation. TP-
Grants (Funding Agency, Title, Funding Amount, Time Frame)

2007
- USDA Food Safety and Inspection Service; FSIS FERN (Federal Response Research Network) Laboratory Validation; $198,300; 1 year
- National Pork Board; Efficacy of novel food antimicrobial combinations for control of Listeria monocytogenes for preservation of ready-to-eat (RTE) products; $34,287; 1 year

2008
- American Meat Institute Foundation/ National Pork Board; A National Survey of the Nitrite/Nitrate Concentrations in Cured Meat; $112,057; 1 year
- National Pork Board; Validation of sanitation procedures to prevent the cross contact with allergens during the processing of pork products; $52,925; 1 year
- Texas Beef Council/National Cattlemen’s Beef Association; Escherichia coli O157:H7 and Salmonella spp. Risk Assessment During the Production of Marinated Beef Strips and Roasts; $60,000; 1 year
- National Cattlemen’s Beef Association; Evaluation of different temperatures and dwell times of hot water to achieve maximum effectiveness in reducing levels of Salmonella Typhimurium, Escherichia coli O157:H7 and coliforms/Escherichia coli on beef carcass surfaces; $65,080; 1 year
- National Cattlemen’s Beef Association; Determination of antimicrobial mechanisms of hot water and L-lactic acid carcass interventions against Escherichia coli O157:H7; $35,010; 1 year
- FSIS; Microbiological Validation Study for FSIS FERN (Federal Response Research Network); $205,000; 1 year
- National Pork Board; Effect of commercial chilling on the survival of Salmonella, Campylobacter coli and Yersinia spp. in pork variety meats; $76,815; 1 year

2009
- American Meat Institute Foundation; Evaluation and Performance of the PremiTest® Salmonella serotyping system on pork and poultry isolates from commercial sources Rapid Method for Salmonella; $49,800; 1 year
- National Cattlemen’s Beef Association; Evaluation of Escherichia coli O157:H7 translocation and decontamination for beef vacuum-packaged subprimals destined for non-intact use; $79,000; 1 year
- USDA National Integrated Food Safety Initiative (NIFSI); Food Safety Assistance for Small Meat and Poultry Processors through Development and Implementation of Industry Best Practices: An Integrated Approach; $131,221; 3 years

C. Service

National/International Organizations
- International Association for Food Protection
- Institute of Food Technologists
- Association of Food Microbiologists
- Society for Applied Microbiology
- American Meat Science Association
- Conference for Food Protection

Editorial Work
- Journal of Food Protection
- International Journal of Food Microbiology
BIOGRAPHICAL SKETCH

NAME: Kerri B. Harris
POSITION TITLE: Associate Professor

EDUCATION / TRAINING (Begin with baccalaureate or other initial professional education)

<table>
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<tr>
<td>Texas A&amp;M University</td>
<td>B.S.</td>
<td>1986</td>
<td>Food Science</td>
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<tr>
<td>Texas A&amp;M University</td>
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<td>1989</td>
<td>Nutrition</td>
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<tr>
<td>Texas A&amp;M University</td>
<td>Ph.D.</td>
<td>1994</td>
<td>Nutrition</td>
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Positions, Employment, Other Experience

1991-1992 Lecturer, Nutrition Division, Department of Human Ecology, University of Texas, Austin
1992-1994 Lecturer, Department of Animal Science, Texas A&M University
1992-1994 Director, Combined Graduate Degree – Dietetic Internship, Department of Animal Science, Texas A&M University.
1994-1997 Associate Director, International Meat and Poultry HACCP Alliance, College Station, Texas.
1997-2000 Executive Director, International HACCP Alliance, College Station, Texas.
2000 to date President/CEO, International HACCP Alliance, College Station, Texas.
2005-2006 Research Associate Professor, Meat Science, Department of Animal Science, Texas A&M University.
2005 to date Professor, Chinese Academy of Agricultural Sciences, Beijing, China
2006 to date Associate Professor, Department of Animal Science, Texas A&M University.
2007 to date Director, Center for Food Safety, Department of Animal Science, Texas A&M University.

Key Research Areas (Bulleted list)
Nutrient Composition of Meat
Food Safety of Meat

Professional Memberships
International Association for Food Protection
American Meat Science Association American
Dietetic Association
Texas Dietetic Association

Honors / Awards Received (Lifetime, list date)

Teaching emphasis
Educator of the Year Award, North American Meat Processors Association, April 2005

Research emphasis
Vice Chancellor’s Award in Excellence for Beef Safety Research Team Award, January 2005
Texas A&M University Academic Excellence Scholarship, 1991-1992
Extension/public service emphasis
Professional Award, National Meat Association, February 2003
Achievement Award, American Meat Science Association, July 2001
Meat Processing’s Rising Star, March 2000
Vice Chancellor’s Award in Excellence for Industry/Agency/Association Partnerships, Dec. 2000
Outstanding Service Award, Department of Animal Science, 1993

Teaching, Research and Service (3-yr Summary)

A. Courses Taught, Semester, Cr Hrs, Number of Students Enrolled

<table>
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<th>Courses Taught</th>
<th>Semester</th>
<th>Credit Hours</th>
<th>Students Enrolled</th>
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<tr>
<td>ANSC/FSTC 457 – Hazard Analysis and Critical Control Point (HACCP)</td>
<td>Fall, 2007</td>
<td>3</td>
<td>45</td>
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<td>ANSC/FSTC 657 – Hazard Analysis and Critical Control Point (HACCP)</td>
<td>Fall, 2007</td>
<td>3</td>
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<td>ANSC 681 – Seminar</td>
<td>Spring, 2007</td>
<td>1</td>
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<td>ANSC 689 - Special Topics in Food Safety: Policy, Regulations, and Issues</td>
<td>Spring, 2008</td>
<td>3</td>
<td>8</td>
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<tr>
<td>ANSC/FSTC 457 – Hazard Analysis and Critical Control Point (HACCP)</td>
<td>Fall, 2008</td>
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<td>ANSC/FSTC 657 – Hazard Analysis and Critical Control Point (HACCP)</td>
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<tr>
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<td>Fall, 2009</td>
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Graduate Degrees – Student Name, Degree Earned, Placement (Name of Employer or Institution)

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<th>Student Name</th>
<th>Degree Earned</th>
<th>Major</th>
<th>Placement</th>
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<tbody>
<tr>
<td>Haneklaus, Ashley N.</td>
<td>M.S.</td>
<td>ANSC</td>
<td>Ph.D. student, Department of Animal Science, Texas A&amp;M University</td>
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<tr>
<td>West, Sarah E.</td>
<td>M.S.</td>
<td>ANSC</td>
<td>Quality assurance, retail food store</td>
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<tr>
<td>Muras, Tiffany M.</td>
<td>M.S.</td>
<td>FSTC</td>
<td>Quality assurance, food company</td>
</tr>
<tr>
<td>Winkler, Dawna</td>
<td>M.S.</td>
<td>ANSC</td>
<td>Food safety/quality assurance, food company</td>
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<tr>
<td>Melissa Davidson</td>
<td>M.S.</td>
<td>FSTC</td>
<td>Family business</td>
</tr>
<tr>
<td>Mayra Marquez Gonzalez</td>
<td>Ph.D.</td>
<td>FSTC</td>
<td>University; teaching and research</td>
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</table>

B. Three-year peer-reviewed publications (in chronological order), grants and intellectual property

Books, Book Chapters, White Papers, etc.

Peer-reviewed Journal Articles


Presentations / Abstracts


alternative cooking procedures for large, intact meat products. 55th International Congress of Meat Science and Technology. Copenhagen, Denmark. PE5.06.

Grants (Funding Agency, Title, Funding Amount, Time Frame)

<table>
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<tr>
<th>Funding Agency</th>
<th>Title</th>
<th>Funding Amount</th>
<th>Time Frame (FY)</th>
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<tbody>
<tr>
<td>American Meat Institute</td>
<td>Evaluation of alternative cooking and cooling procedures for large, intact meat products to achieve lethality and stabilization microbiological performance standards</td>
<td>$70,500</td>
<td>2007</td>
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<tr>
<td>National Cattlemen’s Beef Association on behalf of the Cattlemen’s Beef Board</td>
<td>Tenderness, flavor, and yield assessments of dry aged beef</td>
<td>$60,000</td>
<td>2007</td>
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<tr>
<td>USDA/Food Safety and Inspection Service</td>
<td>Consumer Safety Officer/Enforcement, Investigation and Analysis Officer (April-May, 2007)</td>
<td>$175,847</td>
<td>2007</td>
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<tr>
<td>USDA/Food Safety and Inspection Service</td>
<td>Consumer Safety Officer/Enforcement, Investigation and Analysis Officer (October 1-26, 2007)</td>
<td>$144,631</td>
<td>2008</td>
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<tr>
<td>National Cattlemen’s Beef Association on behalf of the Cattlemen’s Beef Board</td>
<td>Tracing pathogen contamination through the post-harvest environment</td>
<td>$61,400</td>
<td>2008</td>
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<tr>
<td>National Cattlemen’s Beef Association on behalf of the Cattlemen’s Beef Board and Texas Beef Council</td>
<td>Survey of pathogen interventions and best practices used by beef harvesters and processors</td>
<td>$50,000</td>
<td>2008</td>
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<tr>
<td>National Cattlemen’s Beef Association on behalf of the Cattlemen’s Beef Board and Texas Beef Council</td>
<td><em>Escherichia coli</em> O157:H7 and <em>Salmonella</em> spp. risk assessment during the production of marinated beef strips and roasts</td>
<td>$60,000</td>
<td>2008</td>
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<tr>
<td>National Cattlemen’s Beef Association on behalf of the Cattlemen’s Beef Board</td>
<td>Beef Nutrient Database Improvement Research — Phase 1</td>
<td>$59,740</td>
<td>2008</td>
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<tr>
<td>National Cattlemen’s Beef Association on behalf of the Cattlemen’s Beef Board</td>
<td>Evaluation of different temperatures and dwell times of hot water used to achieve maximum effectiveness in reducing levels of <em>Salmonella Typhimurium</em>, <em>Escherichia coli</em> O157:H7 and coliforms and <em>Escherichia coli</em> on beef carcass</td>
<td>$65,080</td>
<td>2008</td>
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</tbody>
</table>
USDA/Food Safety and Inspection Service
Consumer Safety Officer/Enforcement, Investigation and Analysis Officer (October 2008) $157,719 2009

USDA/Food Safety and Inspection Service
Consumer Safety Officer/Enforcement, Investigation and Analysis Officer (April – May 2009) $144,631 2009

National Cattlemen’s Beef Association on behalf of the Cattlemen’s Beef Board
The impact of carcass trimming during the fabrication of subprimals on the resultant Escherichia coli O157:H7 contamination level $43,000 2009

National Cattlemen’s Beef Association on behalf of the Cattlemen’s Beef Board
Evaluation of Escherichia coli O157:H7 translocation and decontamination for beef vacuum packaged subprimals destined for non-intact use $79,000 2009

National Cattlemen’s Beef Association on behalf of the Cattlemen’s Beef Board
Nutrient database improvement research phase 1B: Nutrient analysis of beef chuck cuts $66,460 2009

National Cattlemen’s Beef Association on behalf of the Cattlemen’s Beef Board
Nutrient database improvement research phase 2: Collection, sample preparation and proximate analysis of rib and plate cuts $73,884 2009

Intellectual Property, Patents, Software, etc

C. Service (3-yr Summary)

Department, College, University
- AgriLife Research Representative, GSA (General Services Administration) Solicitation Committee, July 2009 - present
- Association of Former Students Distinguished Achievement Awards for College-Level Teaching Selection Committee, May 2009
- Member, Search Committee for Director, Texas AgriLife Research, 2009
- Member, Search Committee for Executive Director, Veterinary Diagnostic Laboratory, 2008
- Protecting American Consumers Every Step of the Way: Conference on Import Safety Science and Technology; Hosted by Texas A&M Agriculture’s Center for Food Safety College Station, Texas, October 18, 2007
- Co-Chairman, Awards Committee, 2009
- Member, Awards Committee, 2008
- Member, Search Committee for Food Microbiologist Position, 2006 - 2007
- Member, Search Committee for Food Microbiologist Position, 2006 – 2007
National / International Organizations


Editorial Work

Ad hoc reviewer for Meat Science
NAME: Jimmy T. Keeton
POSITION TITLE: Professor, AgriLife Faculty Fellow, Department Head

EDUCATION / TRAINING (Begin with baccalaureate or other initial professional education)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
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<tbody>
<tr>
<td>University of Tennessee, Martin</td>
<td>B. S.</td>
<td>1964-66</td>
<td>General Agriculture</td>
</tr>
<tr>
<td>University of Tennessee, Knoxville</td>
<td>M.S.</td>
<td>1966-68</td>
<td>Animal Husbandry/Ag Education</td>
</tr>
<tr>
<td>University of Tennessee, Knoxville</td>
<td>Ph.D.</td>
<td>1971-73</td>
<td>Animal Science (Food Products)</td>
</tr>
<tr>
<td>North Carolina State University, Raleigh</td>
<td>Post-Doc</td>
<td>1974-77</td>
<td>Animal Science (Food Products)</td>
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<tr>
<td>CSIRO, Meat Science Research Center, Brisbane, AU</td>
<td>Sabbatical</td>
<td>1977-80</td>
<td>Food Science (Chemistry)</td>
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<td></td>
<td></td>
<td>1993</td>
<td>Developed Low-fat Processed Meats for Australian Markets</td>
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</table>

Positions, Employment

1977-80  Post-Doctoral Research Associate
North Carolina State University, Food Science, Meat Chemistry (under Dr. Thomas N. Blumer)

1980-83  Assistant Professor
North Carolina State University, Food Science; Adjunct Assistant Professor in Animal Science; Responsible for Meat Science Teaching, Research

1984-92  Associate Professor (Tenured March 28, 1989)
Texas A&M University, Animal Science; Intercollegiate Faculty of Food Science and Technology; Responsible for Meat Science Teaching, Research (Processed Products)

1992-2007  Professor (January 1, 1992) and AgriLife Faculty Fellow (January 12, 2005)
Texas A&M University, Animal Science; Intercollegiate Faculty of Food Science and Technology; Responsible for Meat Science Teaching, Research (Processed Products)

2007 (9/1-12/1)  Professor, AgriLife Faculty Fellow and Associate Department Head
Texas A&M University, Nutrition and Food Science; Chair, Intercollegiate Faculty of Food Science and Technology; Administration of Academic Programs, Teaching, Research

2007 (12/1) - 2009 (8/1)  Professor, AgriLife Faculty Fellow and Interim Department Head
Texas A&M University, Nutrition and Food Science; Chair, Intercollegiate Faculty of Food Science and Technology; Administration of Academic, Research, Extension Programs, Research

2009 (8/1 to Present)  Professor, AgriLife Faculty Fellow and Department Head
Other Experience

1964-68  Undergraduate – College expenses paid from sale of livestock, summer construction jobs, collegiate work-study program in Animal Science (Feed Analysis, Ruminant Nutrition Laboratory)

1969-71  U.S. Army – Specialist E-5; Combat Medic, Electrocardiogram Technician, Pentagon Dispensary (Division of Walter Reed Army Medical Center, Washington, D.C.)

1973-74  Critical Care Technician – Emergency Room, Intensive Care, Univ. of Tennessee Hospital and Memorial Research Center, Knoxville, TN

Key Research Areas

* Application of biochemical/analytical methods to improve the safety, nutritional value and composition of meat foods
* Characterization of the functional, nutritional and sensory properties of new ingredients, processing aids and meat products
* Development of innovative process technologies and techniques to enhance the safety and quality of meat products

Professional Memberships

Alpha Zeta
American Chemical Society – Agricultural and Food Chemistry Division
American Meat Science Association – Past President
Council of Agricultural Science and Technology (CAST)
Federation of Animal Science Societies (FASS)
Gamma Sigma Delta – Past President
Institute of Food Technologists – Muscle Foods Division; Nutrition Division
International Association of Food Protection
Phi Tau Sigma
Sigma Xi

Honors / Awards Received

1968    M.S., College of Agriculture Graduate Scholarship, University of Tennessee
1974    Ph.D., Gamma Sigma Delta Graduate Scholarship, University of Tennessee
1985-87  Outstanding Service Award, Advisor to Alpha Zeta
1990    Appreciation Award, Texas Association of Meat Processors
1990-92  Director’s Award, American Meat Science Association
1991-92  President’s Award, Gamma Sigma Delta
1992  RMC Chairman’s Award, 45th Reciprocal Meat Conference of the American Meat Science Association, Colorado State University
1993  Award for Excellence, American Ostrich Association
1993  COALS Faculty Development Leave to the Commonwealth Scientific Industrial Research Organization (CSIRO), Meat Research Laboratory, Cannon Hill, Queensland, Australia
1993  Meat Processing Award, American Meat Science Association
1994  Outstanding Presentation Award, American Ostrich Association
1999  President’s Award, American Meat Science Association
2000  Past-President’s Award, American Meat Science Association
2001  Signal Service Award, American Meat Science Association
2005  Faculty Fellow, Texas Agricultural Experiment Station (now AgriLife Research)
2007  Evelyn and Ed F. Kruse ’49 Faculty Fellowship in Food Sciences

Teaching, Research and Service (3-yr Summary)

A. Courses Taught, Semester, Cr Hrs, Number of Students Enrolled

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<tr>
<th>Course Code</th>
<th>Fall 2006, Cr Hrs</th>
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<td>(3 hr) 9</td>
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<td>(4 hr) 10</td>
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<td>NUTR/FSTC 485</td>
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<td>NURT/FSTC 684/685</td>
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</table>

Graduate Degrees – Student Name, Degree Earned, Placement (Name of Employer or Institution)

Yuan H. “Brad” Kim  Ph.D  2008  Post-doc, Food Science, Iowa State University
Hakan Benli  Ph.D.  2008  Assistant Professor, Cukurova University, Turkey
Amy Claflin  M.S., R.D.  2008  M.S. Candidate, Food Science, Texas A&M University (Five Star Foods, Fort Worth, TX)
B. Three-year peer-reviewed publications (in chronological order), grants and intellectual property

Books, Book Chapters, White Papers, etc.


Peer-reviewed Journal Articles (*Graduate Student as Senior Author)


Presentations / Abstracts


**Grants (Funding Agency, Title, Funding Amount, Time Frame)**

**2006-2007**

National Cattlemen’s Beef Association  
Sustained Activity Interventions for Further Reductions of Salmonella and Escherichia coli O157:H7 on Beef Carcasses and in Ground Beef. (12 mo) J.T. Keeton, A. Castillo (Co-PI)  
60,975

California Dried Plum Board  
Evaluation of Dried Plum Powder in Meat Products Destined for Convenience and Foodservice Outlets. (12 mo) J.T. Keeton, W.N. Osburn (Co-PI)  
45,813

**2008-2009**

American Meat Institute Foundation  
A National Survey of the Nitrite/ Nitrate Concentrations in Cured Meat Products and Non-meat Foods Available at Retail. (12 mo) J.T. Keeton, W.N. Osburn, M.D. Hardin, Nathan Bryan  
112,058

**Total Lifetime Funding**  
$4,117,662

**Intellectual Property, Patents, Software (Past 3 yr)**

A. Service (3-yr Summary)

Department, College, University

Animal Science Mentoring Committee for Dr. Luis Tedeschi, Assistant Professor, J. T. Keeton Chair, 2005-2007
Animal Science Mentoring Committee for Dr. Kerri Harris, Associate Professor, J. W. Savell Chair, 2006-2007
Vice Chancellor’s Award Committee, identify and nominate deserving candidates within the Department, David Forrest Chair, 2007-2008
Chair, Intercollegiate Faculty of Food Science, 2007-2010
IFT Undergraduate Curriculum Reapproval Committee, J. T. Keeton, Peter Murano, Co-Chairs, 2005-07
Undergraduate Program Committee – Curricula assessment and compliance with accrediting programs, Michael McBurney, Chair
Ad hoc Research Committee – Identify descriptors for research areas in the department
Associate Dean for Student Development, College of Agriculture and Life Sciences – Chair, Search Committee, 2008
Texas AgriLife Research Faculty Fellows Committee, Chair, 2009
Biological and Agricultural Engineering Department Head Search Committee, Chair, appointed by Dr. Alan Sams,
Executive Associate Dean, Dr. Mark Hussey, Vice Chancellor and Dean, 2009-10

National / International Organizations

Process Authority – Provide written responses for HACCP Plan process deviations in meat plants across the U.S.
2000-Present
Conference, September 17-19, 2007, Itasca, IL.

Editorial Work (Reviewer)

Journal of Food Science
Meat Science
Journal of Agricultural and Food Chemistry
Food Chemistry
International Journal of Food Science and Technology
Lebensmittel-Wissenschaft und Technologie/Food Science and Technology
BIOGRAPHICAL SKETCH

NAME: Karen S. Kubena

POSITION TITLE: Professor

eRA COMMONS USER NAME: 

EDUCATION / TRAINING (Begin with baccalaureate or other initial professional education)

<table>
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<th>DEGREE</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
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<tr>
<td>University of Wisconsin-Madison</td>
<td>BS</td>
<td>1967</td>
<td>Home Economics- Food &amp; Nutrition</td>
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<tr>
<td>Veterans’ Administration Hospital</td>
<td>dietitian</td>
<td>1968</td>
<td>Accredited dietetic internship</td>
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<tr>
<td>Houston, Texas</td>
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<tr>
<td>Mississippi State University</td>
<td>MS</td>
<td>1976</td>
<td>Nutrition</td>
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<tr>
<td>Texas A&amp;M University</td>
<td>PhD</td>
<td>1982</td>
<td>Nutrition</td>
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Positions, Employment, Other Experience

Professor of Nutrition & of Food Science, Department of Nutrition and Food Science, Texas A&M University 2004-present

Assistant Deputy Vice Chancellor for Intercollegiate Academic Programs, Texas A&M University System 2007-08

Associate Dean for Academic Affairs, College of Agriculture and Life Sciences, Texas A&M University 1995-2007

Professor of Nutrition & of Food Science, Department of Animal Science, Texas A&M University, 1996-2004

Associate Professor of Nutrition & Food Science, Department of Animal Science, Texas A&M University, 1988-96

Section Leader, Human Nutrition Section, Department of Animal Science, Texas A&M University, 1984-95

Assistant Professor of Nutrition & Food Science, Department of Animal Science, Texas A&M University, 1982-88

Director, Combined Graduate Degree-Dietetic Internship, Texas A&M University, 1982-1990

Program Director, Undergraduate Program in Dietetics, Texas A&M University Plan IV-1982-1990, Didactic Program in Dietetics, 1990-1999

Lecturer, Department of Animal Science, Texas A&M University, 1979-82

Director, Dietary Department, Grimes Memorial Hospital, Navasota, Texas, 1977-79

Program Coordinator and Instructor, Dietary Assistant Course, Blinn College, Brenham, Texas, 1976-77

Consulting Dietitian, Nursing Homes and Hospitals, 1969-60 (Bryan, Texas), 1970-74 (Kosciusko, Columbus, & Louisville, Mississippi), 1976-77 (Bryan, Hearne, Navasota, & Cameron, Texas)

Therapeutic Dietitian, Veterans’ Administration Center, Temple, Texas, 1968-69

Key Research Areas (Bulleted list)

* Obesity in children and youth
* Social, psychological, economic, lifestyle and other factors as related to nutrition and health

**Professional Memberships**
Registered Dietitian (RD), Commission on Dietetic Registration
American Dietetic Association
American Society of Nutrition

**Honors / Awards Received** (Lifetime, list date)
2008 American Dietetic Association Excellence in Dietetic Education Award for Didactic Programs in Dietetics, Area IV (Arizona, Colorado, Nevada, New Mexico, Oklahoma, Texas and Utah)
2008 Dietetic Educator of the Year Award for Didactic Programs in Dietetics by the Texas Dietetic Association
Outstanding Service Award. National Association of State Universities and Land Grant Colleges Board on Agriculture Assembly, Academic Programs Section - 2007
2004 Alumni Fellow Award for College of Agriculture and Life Sciences by Mississippi State University
Texas A&M Honors Invitational for National Merit semi-finalists –invited faculty speaker - 2003-09
Wakonse Fellow, Wakonse Conference on Innovative College Teaching, Shelby, Michigan - 1999
Service Certificate, Commission on Accreditation/Approval for Dietetics Education – 1997
Recognition of Service Award, American Dietetic Association - 1994-99
Association of Former Students of Texas A&M University Distinguished Teaching Award - College of Agriculture and Life Sciences, 1992
Sigma Xi, National Honorary Research Society, 1991
Outstanding Service Award, The American Dietetic Association, 1989, 1990
Outstanding Women in Texas Government Award Certificate of Appreciation, 1990
American College of Nutrition - Elected as Fellow (FACN) – 1988
Phi Kappa Phi, National Honorary Society, 1976
Gamma Sigma Delta, National Honorary Agricultural Society, 1976
Phi Tau Sigma, National Food Science Honorary Society, 1975
Kappa Omicron Phi, National Honorary Home Economics Society, 1975
NIH Allied Health Trainee Award, Mississippi State University, Starkville, 1974-76
Senior Honors, University of Wisconsin, 1967
Teaching, Research and Service (3-yr Summary)

A. Courses Taught, Semester, Cr Hrs, Number of Students Enrolled

Graduate Degrees – Student Name, Degree Earned, Placement (Name of Employer or Institution)

B. Three-year peer-reviewed publications (in chronological order), grants and intellectual property

Books, Book Chapters, White Papers, etc


Peer-reviewed Journal Articles


* Kim, KH, McIntosh, A, Sobal, J, Kubena, K. Religion, food attitudes, social support, diet, nutrition, and anthropometrics in elderly individuals. Ecol Food Nutr 47:205-228, 2008


Presentations / Abstracts

* Kim MJ, McIntosh WA, Anding J, Reed D, Kubena KS. Perceived parendng behaviors predict young adolescents’ nutritional intake and body fatness. Annual meeting of the Association for the Study of Food in Society, Boston. 2006


* Graduate student is senior author.

Grants (Funding Agency, Title, Funding Amount, Time Frame)


Intellectual Property, Patents, Software, etc

C. Service (3-yr Summary)

Department, College, University

National / International Organizations

Editorial Work
# BIOGRAPHICAL SKETCH

| NAME: Joanne R. Lupton | POSITION TITLE: Distinguished Professor, Regents Professor, University Faculty Fellow and William W. Allen Endowed Chair in Human Nutrition |

## eRA COMMONS USER NAME:

## EDUCATION / TRAINING (Begin with baccalaureate or other initial professional education)

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<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
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<tbody>
<tr>
<td>Mt. Holyoke College</td>
<td>B.A.</td>
<td>1966</td>
<td>Philosophy</td>
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<td>California State University</td>
<td>M.S.</td>
<td>1980</td>
<td>Foods and Nutrition</td>
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<td>University of California, Davis</td>
<td>Ph.D.</td>
<td>1984</td>
<td>Nutrition (Minor, Physiological Chemistry)</td>
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<td>Post Doctoral Fellow/UC Davis Medical School</td>
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<td>1984</td>
<td>Clinical Nutrition</td>
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## Positions, Employment, Other Experience

- **1980-1984** Post-Graduate Research Associate, Associate Instructor, Post-Doctoral Fellow University of California, Davis
- **1984-1989** Assistant Professor of Nutrition, Department of Animal Science Texas A&M University, College Station, Texas
- **1989-present** Cross-appointed Department of Veterinary Anatomy and Public Health, College of Veterinary Medicine, now Veterinary Integrative Biosciences, Texas A&M University
- **1989-1996** Associate Professor of Nutrition, Department of Animal Science, Texas A&M University
- **1990-1993** Founding Chair, Faculty of Nutrition, Texas A&M University
- **1995-2005** Section Leader, Human Nutrition, Dept. of Animal Science
- **1995-present** William W. Allen Endowed Chair in Human Nutrition
- **1996-present** Professor, Texas A&M University
- **1999-present** Regents Professor, Texas A&M University
- **2000-present** University Faculty Fellow, Texas A&M University
- **2000-2008** Program Leader, Nutrition, Physical Fitness and Rehabilitation, National Space Biomedical Research Institute (NASA/NSBRI)
- **2003-2004** Visiting Scholar, Food and Drug Administration, Center for Food Safety and Applied Nutrition, College Park, MD
- **2008-present** Distinguished Professor, Texas A&M University
Key Research Areas (Bulleted list)

- effect of diet on colon physiology and colon cancer with a particular focus on dietary fiber and n-3 fatty acids
- developing a rapid early detection technique to potentially identify “at-risk” individuals for colon cancer
- developing nutritional countermeasures for NASA to reduce the risk of radiation-induced cancer during long-duration space flights

Professional Memberships
American Institute of Nutrition, American Society for Nutritional Sciences, American Society for Nutrition (ASN) 1989 - present
American Association for Cancer Research, 1997 - present
American Physiological Society, 1987 - present
Sigma XI, 1987 – present
Associate Editor, Nutrition and Cancer, an International Journal, 1999-present
Editorial Board, Current Nutrition Reviews, 2004-present

Honors / Awards Received (Lifetime, list date)

Vice Chancellor's Award for Research, Texas A&M University, 1998. Presented to one individual/year for on-campus research.
Regent's Professor, Texas A&M University, 1999-present.
Appointed to Food Forum, Institute of Medicine, National Academy of Sciences, 1999-2005.
University Faculty Fellow, inaugural class, 2000 – present.
Chair, Panel to determine the definition of dietary fiber, Dietary Reference Intake Committee (DRI) of the National Academy of Sciences, 2000-2001.
Chair, Macronutrient Panel, Dietary Reference Intake Committee (DRI) of the National Academy of Sciences to determine scientific guidelines for energy, carbohydrates, fiber, protein and lipids, 2000-2003
Program Leader for Nutrition, Physical Fitness and Rehabilitation, NASA/National Space Biomedical Research Institute, 2000-present.
Appointed Lifetime Associate, the National Academy of Sciences, 2002-present.
Visiting Scholar, Food and Drug Administration, College Park, MD. 1 y appointment, 2003.
• Appointed to Commissioner’s Task Force for Better Nutrition.
• Received Commissioner’s Special Citation and medal for contribution to developing an evidence-based system for health claims.

Appointed to the Board of Trustees, International Life Sciences Institute, North America, 2004-present
Appointed US nutrition advisor to the international program on artificial gravity for long duration space flight, 2004-present.
Appointed to the Food Advisory Committee, Food and Drug Administration, 2005-present.
President-Elect American Society of Nutritional Sciences (ASNS), then elected to the transition executive board for forming the new society (ASN), 2005-2006
President-Elect American Society for Nutrition (ASN), 2006-2007
Association of Former Students Distinguished Achievement Award for Research, Texas A&M University, 2007
President, American Society for Nutrition (ASN), 2007-2008
Past-President, American Society for Nutrition (ASN), 2008-2009
Appointed to the Nutrition Advisory Committee to Commissioner Todd Staples, Texas Department of Agriculture, 2007-present
Appointed to the Board of Directors of the Federation of American Societies for Experimental Biology (FASEB), 2007-2009
Elected Fellow, American Society for Nutrition, 2009-present

Teaching, Research and Service (3-yr Summary)

A. Courses Taught, Semester, Cr Hrs, Number of Students Enrolled

Nutrition 489/689: Critical Evaluation of Nutrition & Food Science Literature: Evidence based reviews. 3 hours. Fall semesters 2008-present ~ 20 students
Nutrition 470: Physiological Chemistry. Tissue specific metabolism of proteins, carbohydrates and lipids and the controls on metabolism. 3 hours. Spring semesters 1990-present ~ 80 – 100 students
Nutrition 691 Graduate Research. Teach every semester. 1985-present ~3 - 5 students

Graduate Degrees – Student Name, Degree Earned, Placement (Name of Employer or Institution)
Elizabeth Anne Kahlich. MS, 2006.
Kyunghwa Baek, PhD, 2007
Jaime Lewis, MS, 2008
Iryna Lobach, PhD, 2006
Kimberly Paulhill, MS, 2008
Sibyl Miller, MS, 2007
B. Three-year peer-reviewed publications (in chronological order), grants and intellectual property

Books, Book Chapters, White Papers, etc


Peer-reviewed Journal Articles


Presentations / Abstracts

Presentations:


4. **From molecules to meals: Constructing the 2005 Dietary Guidelines.** Friedman School Symposium, Tufts University, Boston MA, September 20, 2006.


8. **From molecules to food patterns: The challenge of developing a national nutrition policy.** University Distinguished Lecture. Texas A&M University, College Station, TX, March 20, 2007.


15. **Diet and colon carcinogenesis: Using mRNA from exfoliated colon cells to predict tumor outcome.** Cancer Prevention Grand Rounds, MD Anderson Cancer Center, February 20, 2009.

16. **Notes from the crypt: What statistics can tell us about colon cancer.** Statistical Methods for Complex Data” to honor and celebrate Raymond Carroll’s 60th birthday and his distinguished career. March 14, 2009.


23. *Smart Choices Program: Science Behind it and Comparison to other programs.* Panel on the Smart Choices Program; Purdue Fall Corporate Affiliates. Purdue University West Lafayette, Indiana, August 28, 2009.

**Abstracts**


Grants (Funding Agency, Title, Funding Amount, Time Frame)

1. Title: Measurement error, nutrition and breast/colon cancer
Investigators: R.J. Carroll, PI, J.R. Lupton, Co-investigator, (7% effort)
Agency: National Institutes of Health/National Cancer Institute
Type: 5 R37 CA057030-21: Period 7/08/2005 – 4/30/2010
Project Direct Costs: $309,549 per year, $1,387,671.19.
Specific Aims: The long-term objective of this research project is to develop new statistical methods for problems involving nutrition, cancer and related areas.

2. Title: Nutrition, Biostatistics, and Bioinformatics
Investigators: J.R. Lupton, Co-Investigator, (8% effort) R.J. Carroll, PI
Agency: National Institutes of Health/National Cancer Institute
Type: R25 (CA90301): Period: 8/1/01 - 6/30/11.
Project Direct Costs: $2,286,848
Specific Aims: Our goal is to train statistically oriented individuals to function as independent researchers in a multidisciplinary environment focusing on Nutrition and cancer. To achieve this goal we have assembled a team of researchers specializing in Statistics/Biostatistics, Bioinformatics and the biology of Nutrition and cancer.

3. Title: Bayesian Models for Gene Expression with Microarray
Investigators: B. Mallick, PI, J.R. Lupton, (5% effort) Co-investigator
Agency: National Institutes of Health/NCI
Type: RO1 CA104620: Period: 6/10/05 – 5/31/2009
Project Direct Costs: $197,500/year
Specific Aims: Specific aim is to develop models for colon gene expression profiles of microarray data.

4. Title: PhD training program in critical areas of space life sciences
Investigators: J. R. Lupton, PI, (10% effort) N.D. Turner, Co-PI
Agency: National Space Biomedical Research Institute
Type: Education Grant: Period: 7/1/06-6/30/12
Project Direct Costs: $1,031,630
Specific Aims: To train future space life scientists in a coordinated PhD program

5. Title: Simultaneous gene expression analysis of coding and non-coding RNAs in colon cancer prevention
Investigators: RS Chapkin, PI, JR Lupton, Co-PI
Agency: National Institutes of Health, NCI
6. Title: Colonic cytokinetics and cell signaling: dietary effects
   Investigators: RS Chapkin, PI, JR Lupton, Co-PI
   Agency: National Institutes of Health, NCI
   Type: 2RO1 CA0595034; Period: 12/01/2007-11/30/2012
   Project Direct Costs: $1,785,880

7. Title: Ability of n-3 fatty acids to influence colon tumor formation by modulating estrogen action
   Investigators: C Allred, PI, JR Lupton, Co-PI
   Agency: American Institute for Cancer Research
   Type: Research Grant; Period: 1/1/2008 – 12/31/2009
   Project Direct Costs: $165,000
   Specific Aims: To determine the ability of n-3 fatty acids to influence colon tumor development as a function of estrogen administration.

8. Title: Gene Expression Analysis of Coding and Non-coding RNAs in Colon Cancer Prevention
   Investigators: RS Chapkin, PI, JR Lupton, Co-PI
   Agency: National Institutes of Health
   Type: R01 CA129444; Period: 8/1/2009 – 7/31/2011
   Project Direct Costs: $300,000; Total Costs: $439,500
   Specific Aims: To use well established colitis-associated colon cancer models, i.e., the azoxymethane (AOM)-dextran sodium sulfate (DSS) treated mouse and AOM treated Interleukin-10 (IL-10) null mouse models in combination with a chemoprotective diet extensively studied in our laboratory, i.e., n-3 polyunsaturated fatty acids (PUFA). These experimental models will be used to test our hypothesis that n-3 PUFA suppression of oncogene-directed

C. Service (3-yr Summary)

   Department, College, University

Local/State Invited Presentations


2. The Importance of Optimal Nutrition to Long Duration Spaceflight: Food for the Future. Presentation to students who are part of a summer research program in biology at Texas A&M. July 20, 2006.


5. The Importance of Nutrition to Long Duration Space Flight and Why Depressed Food Intake in Space is Not a Good Idea. Half day interactive session with PhD students in the NSBRI Fellows
program. National Space Biomedical Research Institute Bioastronautics Summer Program. Baylor College of Medicine, Houston, TX. June 6, 2008.

6. The importance of optimal nutrition to long duration spaceflight and Depressed food intake and the catabolic state: consequences for astronaut health. Half day interactive session with PhD students in the NSBRI Fellows program. National Space Biomedical Research Institute Bioastronautics Summer Program. Baylor College of Medicine, Houston, TX. June 6, 2009.


Search Committees at Texas A&M University (Committee Member unless otherwise noted)
Department Head, New Department of Nutrition and Food Science, 2005-2006
Assistant Professor of Nutrition, Department of Nutrition and Food Science, 2005-2006
Co-chair with Dr. Jimmy Keeton of the search for four faculty positions for the Department of Nutrition and Food Science, 2006-2007
Chair, Vice President for Research, Texas A&M University, 2008-2009
Department Head and Professor, Department of Nutrition and Food Science, 2008-2009

University Wide Committees
Research Roadmap Committee, 2008-2009
Texas A&M University Press Faculty Advisory Committee, 2009-present
Professor and Holder of the Charles R. Parencia, Jr. Chair in Entomology, 2009-present

Department Committees (Animal Science and Nutrition and Food Science)
Chaired, organized and was responsible for the Texas Coordinating Board Review of the PhD program in Nutrition
Elected member of the Advisory Committee to the Dean, College of Agriculture and Life Sciences, 2006-current.
Chair, Faculty Advisory Committee to the Department Head, Department of Nutrition and Food Science (2006-present).
Member of mentoring committees for two new faculty members in the Department of Nutrition and Food Science, 2006-present.
National / International Organizations

Appointed to a working group for the Keystone Symposium for workshops on aligning the Food label and the Food Guide Pyramid, 2006-present.

Member of the Executive Committee of the transition team to meld the American Society for Nutritional Sciences, the American Society of Clinical Nutrition and the Society for International Nutrition Research into the American Society for Nutrition (ASN), 2005-2006.

Member, Public Policy Committee, American Society for Nutrition (ASN), 2006-present.


Panelist, NIH/NCI, Division of Cancer Prevention Review Panel for the Nutritional Science Research Group, 2008.

Invited Expert, Institute of Medicine (IOM), Food and Nutrition Board planning meeting focused on the topic of DRI Chronic Disease Indicators, July 6-7, 2009.


Editorial Work
# BIOGRAPHICAL SKETCH

**NAME:** Rhonda K. Miller  
**POSITION TITLE:** Professor

<table>
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<th>eRA COMMONS USER NAME:</th>
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## EDUCATION / TRAINING (Begin with baccalaureate or other initial professional education)

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<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
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<td>Colorado State University, Fort Collins, Colorado</td>
<td>B.S</td>
<td>1978</td>
<td>Agriculture Journalism</td>
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<td>Colorado State University, Fort Collins, Colorado</td>
<td>M.S</td>
<td>1982</td>
<td>Animal Science/Meat Science</td>
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<tr>
<td>Colorado State University, Fort Collins, Colorado</td>
<td>Ph.D</td>
<td>1983</td>
<td>Animal Science/Meat Science</td>
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## Positions, Employment, Other Experience

1999 to present  
Professor, Department of Animal Science, Texas A&M University, College Station, TX

1993 to 1999  
Associate Professor, Department of Animal Science, Texas A&M University, College Station, TX

1988 to 1993  
Assistant Professor, Department of Animal Science, Texas A&M University, College Station, TX

2009  
American Meat Science Association Reciprocal Meat Science Planning Committee, Subcommittee Chair for Consumer Issues

2009  
American Meat Science Association Teaching Award Committee

2009  
American Society of Animal Science Southern Section Teaching Program Planning Committee

2008  
Past President of the Texas A&M Chapter of Gamma Sigma Delta

2008-present  
American Meat Science Association Sensory and Cookery Guidelines Revision Committee  
American Society of Animal Science Meat Science Award Committee
2007  President of the Texas A&M Chapter of Gamma Sigma Delta
       American Meat Science Association Teaching Award Committee, Chair

2006  Secretary of the Texas A&M Chapter of Gamma Sigma Delta

Key Research Areas (Bulleted list)

Professional Memberships
   Alpha Zeta
   American Society of Animal Science
   American Meat Science Association
   American Society of Testing Materials – Member of Committee E18 – Sensory Evaluation
   Council for Agricultural Science and Technology
   Gamma Sigma Delta
   Institute of Food Technologist – Muscle Foods Division
   Phi Tau Sigma

Honors / Awards Received (Lifetime, list date)

Teaching, Research and Service (3-yr Summary)

A. Courses Taught, Semester, Cr Hrs, Number of Students Enrolled

   ANSC/FSTC 407, 2 hours of lecture and 2 hours of laboratory. 3 credits.
   ANSC/FSTC 647, 3 hours of lecture. 3 credits.

   Graduate Degrees – Student Name, Degree Earned, Placement (Name of Employer or Institution)

B. Three-year peer-reviewed publications (in chronological order), grants and intellectual property
   Books, Book Chapters, White Papers, etc
Binghamton, NY. 2007

Peer-reviewed Journal Articles


2006. Effect of oral nitroethane and 2-nitropropanol administration on methane-producing activity and

Knight*, T.D., R.K. Miller, J. Maxim and J.T. Keeton. 2006. Sensory and physiochemical characteristics of
frankfurters formulated with potassium lactate and sodium diacetate before and after irradiation treatment. J.
Food Sci. (Submitted)


comparison of sow longevity and the trait associations with sow longevity. J. Anim. Sci. 84:2590-2595.


Knight*, T.D., R.K. Miller, J. Maxim and J.T. Keeton. 2007. Sensory and physiochemical characteristics of
frankfurters formulated with potassium lactate and sodium diacetate before and after irradiation treatment. J.
Food Sci. 72:S112-S118.


Tenderness Survey – 2006: Assessment of Warner-Bratzler shear and sensory panel ratings for beef from US

Savell. 2008. Identifying muscle and processing combination suitable for use as beef fajitas. Meat Sci. 80:259-
271

2008. Dry versus wet aging of beef: Retail cutting yields and consumer sensory attribute evaluations of steaks
from ribeyes, strip loins, and top sirloins from two quality grade groups. Meat Sci. 80:795-804.


*Indicates graduate student as senior author.

Presentations / Abstracts


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<thead>
<tr>
<th>Grants (Funding Agency, Title, Funding Amount, Time Frame)</th>
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<tr>
<td><strong>2006</strong></td>
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<tr>
<td>MicroAnalytics</td>
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<td>Swift</td>
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<td><strong>Subtotal</strong></td>
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<p>| <strong>2007</strong>                                                 |
| NCBA           | Dry-aging of Beef for Retail  | 138,056 | 28,800 |
| NCBA           | Marbling and Sensory for Beef fed Brewer’s Distilled Grains  | 49,326 | 9,830 |
| NCBA           | Dark Cutting Beef  | 30,000 | 12,000 |
| TBC            | Dark Cutting Beef  | 30,000 | 12,000 |
| NCBA           | Tannis to Improve Beef Safety  | 97,053 | 2,000 |
| BIT            | Natural Beef – 2nd year  | 100,000 | 10,000 |
| NPB            | Pork Benchmark Study-yr 1  | 474,288 | 184,987 |</p>
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<tr>
<th>Description</th>
<th>Year 1</th>
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**2008**

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<td>ARI ARI RFI and Carcass Assessment</td>
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<td>NBP Allergens</td>
<td>45,825</td>
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<td>Sysco Warner-Bratzler shear force</td>
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<td>12,000</td>
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<td>Sysco Shear force of Bonsmara 12 muscles</td>
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<td>12,810</td>
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<tr>
<td>TBC Baby Beef Chemical Analyses</td>
<td>1,080</td>
<td>1,080</td>
</tr>
<tr>
<td>Cargill Cargill Sensory</td>
<td>2,200</td>
<td>2,200</td>
</tr>
<tr>
<td>Castillo Irradiated Spinach Sensory</td>
<td>4,800</td>
<td>4,800</td>
</tr>
<tr>
<td>NolanRyan Nolan Ryan NRI Shears</td>
<td>13,650</td>
<td>7,200</td>
</tr>
<tr>
<td>Osburn Lowder Sensory</td>
<td>1,650</td>
<td>1,650</td>
</tr>
<tr>
<td>ReadyPak HEB Spinach/Lettuce Sensory</td>
<td>8,800</td>
<td>8,800</td>
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<tr>
<td>Santa Gertrudis Breeders International Shear Force determinations</td>
<td>1400</td>
<td>1400</td>
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<tr>
<td>Quantum Shear force determinations</td>
<td>120</td>
<td>120</td>
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<tr>
<td>American Brahman Breeders</td>
<td></td>
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<tr>
<td>Shear Force Determinations</td>
<td>800</td>
<td>800</td>
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<tr>
<td>NCBA Marbling and Sensory for Beef fed</td>
<td></td>
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<tr>
<td>Brewer’s Distilled Grains</td>
<td>49,326</td>
<td>9,830</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>$758,101</td>
<td>$269,027</td>
</tr>
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</table>

Intellectual Property, Patents, Software, etc

C. Service (3-yr Summary)
Department, College, University

National / International Organizations

Editorial Work
NAME: Moreira, Rosana Galves

POSITION TITLE: Professor of Food Engineering

eRA COMMONS USER NAME: rmoreira

EDUCATION / TRAINING (Begin with baccalaureate or other initial professional education)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
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</thead>
<tbody>
<tr>
<td>Campinas State University</td>
<td>B.Sc.</td>
<td>1976-1980</td>
<td>Agricultural Engineering</td>
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<tr>
<td>Michigan State University</td>
<td>M.S.</td>
<td>1982-1983</td>
<td>Agricultural Engineering</td>
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<tr>
<td>Michigan State University</td>
<td>Ph.D.</td>
<td>1983-1989</td>
<td>Agricultural Engineering</td>
</tr>
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</table>

Positions, Employment, Other Experience

2007-present  Assistant Department Head, Dept. of Biological and Ag. Eng., Texas A&M University
2007-present  Distance Learning Coordinator, Dept. of Biological and Ag. Eng., Texas A&M University
2005-2007     Director, Center for Food Process Dept. of Biological and Ag. Eng., Texas A&M University
2004-present  Professor, Dept. of Biological and Ag. Eng., Texas A&M University
2002-present  Graduate Committee Chair, Dept. of Biological and Ag. Eng., Texas A&M University
1998-2004     Associate Professor, Dept. of Biological and Ag. Eng., Texas A&M University
1993-1998     Assistant Professor, Dept. of Biological and Ag. Eng., Texas A&M University
1990-1993     Visiting Specialist, Dept. of Biological and Ag. Eng., Texas A&M University

Key Research Areas (Bulleted list)
- Process modeling and control
- Food safety
- Unit operations in food processing (frying, extrusion, irradiation)

Professional Memberships
- Institute of Food Technologists (IFT) – 1987-present
- American Society of Biological and Agricultural Engineering (ASABE) – 1987-present

Honors / Awards Received (Lifetime, list date)
- COALS Faculty Fellow - 2006
- Dwight Look College of Engineering Fellow - 2006
- Nominated for the IFT Nicolas Appert Award – 2006-2007
- Recognition award for the work done for CIGR ejournal as editor-in-chief – 2006
- Alpha Epsilon Agricultural Engineering Honor Society
- Phi Beta Delta International Scholars Honor Society
Teaching, Research and Service (3-yr Summary)

A. Courses Taught, Semester, Cr Hrs, Number of Students Enrolled

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course</th>
<th>Credit Hours</th>
<th>No. Sections</th>
<th>No. of Students</th>
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<tbody>
<tr>
<td>FALL 2006</td>
<td>BAEN/CHEN 474 (BAEN 622) – Unit Operations in Food Engineering</td>
<td>(3)</td>
<td>One</td>
<td>14</td>
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<tr>
<td>SPRING 2007</td>
<td>BAEN 366 – Heat and Mass Transfer in Biological Processes</td>
<td>(3)</td>
<td>One</td>
<td>30</td>
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<td>FALL 2007</td>
<td>BAEN/CHEN 474 (BAEN 622) – Unit Operations in Food Engineering</td>
<td>(3)</td>
<td>One</td>
<td>15</td>
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<tr>
<td>SPRING 2008</td>
<td>BAEN 366 – Heat and Mass Transfer in Biological Processes</td>
<td>(3)</td>
<td>One</td>
<td>33</td>
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<tr>
<td></td>
<td>BAEN 625 – Advanced Food Engineering</td>
<td>(3)</td>
<td>One</td>
<td>10</td>
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<tr>
<td>FALL 2008</td>
<td>BAEN/CHEN 474 (BAEN 622) – Unit Operations in Food Engineering</td>
<td>(3)</td>
<td>One</td>
<td>14</td>
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<tr>
<td>SPRING 2009</td>
<td>BAEN 366 – Heat and Mass Transfer in Biological Processes</td>
<td>(3)</td>
<td>One</td>
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<td>FALL 2009</td>
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<td></td>
<td></td>
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</tbody>
</table>
Graduate Degrees – Student Name, Degree Earned, Placement (Name of Employer or Institution)

a. Mr. Akhilesh Pandey, M.S. in Biological and Agricultural Engineering (Food Engineering emphasis). December 2009. Food Protein R&D, Texas A&M University.

B. Three-year peer-reviewed publications (in chronological order), grants and intellectual property

Books:


Book Chapters:


Peer-reviewed Journal Articles:


Presentations / Abstracts:


Invited presentations:


Patents:


Grants (Funding Agency, Title, Funding Amount, Time Frame):

1. TOTAL Inc. Thermal Cracking of Heavy Oil (M. Barrufet). $100,000. 01/08-01/09.


3. USDA/CSREES Phase Grant. Improving Safety of Complex Food Items using Electron Beam Technology. Total Funds for 4 years: $1,061,000 (Responsible for $ 650,000). 2002-2006. PI. Co-PIs: E. Castell-Perez (BAEN) and A. Vestal (AGED).

C. Service (3-yr Summary)

Department:

Assistant Department Head, BAEN. 2007-present.
Graduate Program Chair. BAEN. 2002-present.
Long Distance Coordinator. BAEN. 2007-present.
In charge of the Graduate Program Review - self study report for the BAEN department - 2007

College:

Departmental representative in the College P&T Committee. 2008-present.
Member of the Interdisciplinary Faculty of Food Science (current).
Graduate Instruction Committee (COALS). 2002-present.
Graduate Instruction Committee (COE). 2002-present.
University:

Search committee member of TAMU Presidential Search Committee. 2008.

National / International Organizations:

Chair of the Food Engineering IFT New Framework. 2009.
Appointed by the Governor of Texas - Bill Perry – as a member of the Texas Radiation Advisory Board - (2006 – present).

Editorial Work:

Co-editor: Journal of Food Process Engineering (with E. Castell-Perez).
NAME: Elsa A. Murano

POSITION TITLE: Professor

eRA COMMONS USER NAME: 

EDUCATION / TRAINING (Begin with baccalaureate or other initial professional education)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Florida International University Miami, FL</td>
<td>B.S</td>
<td>1981</td>
<td>Biological Sciences</td>
</tr>
<tr>
<td>Virginia Tech Blacksburg, VA</td>
<td>M.S</td>
<td>1987</td>
<td>Anaerobic Microbiology</td>
</tr>
<tr>
<td>Virginia Tech Blacksburg, VA</td>
<td>PhD</td>
<td>1990</td>
<td>Food Science &amp; Technology</td>
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</table>

Positions, Employment, Other Experience

2009–present: **Professor**, Department of Nutrition and Food Science, Texas A&M University.


- Serve as Chief Executive Officer, over the 6th largest university in the nation, responsible for administering its total academic, as well as research and service programs, with a total budget of $1.2 billion. The academic program features over 120 undergraduate and 240 graduate degree programs. There are over 48,000 students enrolled, including 1,800 in the largest uniformed cadet program in the nation. The university has over 2,800 faculty, and a robust research program that generates $520 million in research contracts and grants annually. The university has two branch campuses: in Galveston, Texas and in Doha, Qatar.


- **Vice Chancellor of Agriculture** - Coordinate teaching, research, and extension activities in agriculture for various components of the university system, directly oversee the Texas Agricultural Experiment Station (TAES), the Texas Cooperative Extension, the Texas Forest Service, and the Texas Veterinary Medical Diagnostic Laboratory.
- Dean of the College of Agriculture and Life Sciences at Texas A&M University - Oversee and administer 26 academic programs in the 15 academic departments within the college at Texas A&M University-College Station, with a student body of 6,700 students (5,500 undergraduate and 1,200 M.S. and Ph.D). Total college budget is $31 million annually.

2005–2007: **Director of the Texas Agricultural Experiment Station**
Direct all research programs in agriculture at Texas A&M University-College Station, with 579 faculty and 2,500 staff located at 14 on-campus departments, 14 on-campus centers and institutes, and 13 off-campus research and extension centers. Total agency budget is $155 million annually, with research contracts and grants totalling $100 million annually.

2001-2009:  Professor, Department of Animal Science, Texas A&M University

- Holder, Sadie Hatfield Professorship in Agriculture (2000-2001)

Key Research Areas (Bulleted list)

Professional Memberships

Honors / Awards Received (Lifetime, list date)

- Inducted into the Texas Woman of the Year Hall of Fame, 2008.
- Named one of 15 Elite Women by Hispanic Business Magazine, April 2008.
- American Meat Institute’s Industry Advancement Award, October 2005.
- Inducted into the National Hispanic Scholarship Fund Hall of Fame, September 2005.
- Named one of the 100 Most Influential Hispanics by Hispanic Business Magazine, October 2002.
- Sadie Hatfield Endowed Professorship in Agriculture, Texas A&M University, 2000-2001.
- ISU Foundation Award on Early Achievement (nominated from MIPM), Iowa State University, 1994.
- Institute of Food Technologists Certificate of Merit for Outstanding Scholarship, 1989.
- American Society for Microbiology National Pre-Doctoral Minority Fellowship for Outstanding Research and Scholarship, 1987.

Teaching, Research and Service (3-yr Summary)

A. Courses Taught, Semester, Cr Hrs, Number of Students Enrolled
Graduate Degrees – Student Name, Degree Earned, Placement (Name of Employer or Institution)

B. Three-year peer-reviewed publications (in chronological order), grants and intellectual property

Books, Book Chapters, White Papers, etc

Peer-reviewed Journal Articles

Presentations / Abstracts

**International**


International Association of Marketing and Agribusiness, Food Safety from an International Perspective, June 26th, 2007, Parma, Italy.

**National**


National Association of State Universities and Land-Grant Colleges Academic Summit, June 11, 2007, College Station, Texas.


National Association of State Universities and Land-Grant Colleges National Meeting, “CFERR Science: Keeping America Competitive” Plenary Session, November 12, 2006, Houston, TX.


**State**


Grants (Funding Agency, Title, Funding Amount, Time Frame)

Intellectual Property, Patents, Software, etc

C. Service (3-yr Summary)

Department, College, University

National / International Organizations

Editorial Work
BIOGRAPHICAL SKETCH

NAME
Peter S. Murano

POSITION TITLE
Associate Professor
Director, Institute for Obesity Research and Program Evaluation

eRA COMMONS USER NAME

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and
INSTITUTION AND LOCATION                  DEGREE (if applicable)     YEAR(s)       FIELD OF STUDY
University of the State of New York, Albany, NY     B.Sc.          1983            Biological Science
VA Polytechnic Inst. & State Univ., Blacksburg, VA   M.S.           1986            Human Nutrition & Foods

Positions, Employment, Other Experience
1990-1991  Lecturer, Department of Human Nutrition & Foods, Virginia Polytechnic Institute & State University, Blacksburg, VA 22460
1992-1995  Affiliate Assistant Professor, Department of Food Science & Human Nutrition, Department of Microbiology, Immunology, and Preventive Medicine, Iowa State University, Ames, IA 50010
1995-2000  Assistant Professor of Food Science & Technology, Department of Animal Science, Texas A&M University, College Station, TX 77843-2471
2001      Associate Professor of Food Science & Technology, Department of Animal Science, Texas A&M University, College Station, TX 77843-2471
2001-2004  Deputy Administrator for Special Nutrition Programs, Food and Nutrition Service, U.S. Department of Agriculture, 3101 Park Center Drive, Alexandria, VA 22302
2004-present  Associate Professor of Food Science and Technology, Department of Nutrition and Food Science, Texas A&M University, College Station, TX 77843-2253
2006-present  Director, Institute for Obesity Research and Program Evaluation, Texas A&M University College Station, TX 77843-2253

Key Research Areas (Bulleted list)
• Obesity
• Food product development
• Policy and program evaluation
• Sensory evaluation

Professional Memberships
Institute of Food Technologists, Member, intermittent since 1987 (Food Chemistry Division, Sensory Evaluation Division, Educational Division)
American Chemical Society, Member, 1999-2001
National Association of Colleges and Teachers of Agriculture (NACTA), Member, 1998-2001
Sigma Xi, The Scientific Research Society, Member, 1988-1991
Kappa Omicron Nu, Member, 1988-1991

Honors / Awards Received (Lifetime, list date)
June 2004  U.S. Secretary of Agriculture’s Honor Award for Superior Service, National Fruit and Vegetable Pilot Program.
2000      Distinguished Teaching Award, Texas A&M University Association of Former Students, College of Agriculture and Life Sciences.
1998  Wakonse Teaching Fellow, College of Agriculture and Life Sciences, Texas A&M University,

1989  First Place, Student Scientist Awards Competition, Southern Association of Agricultural Scientists Annual Meeting, Nashville, TN.,

1988  Outstanding Graduate Student Award, Department of Human Nutrition & Foods, Virginia Polytechnic Institute & State University, Blacksburg, VA,

Teaching, Research and Service (3-yr Summary)

A. Courses Taught, Semester, Cr Hrs, Number of Students Enrolled
   FSTC 201 Introduction to Food Science 2009 (573 students); 2008 (591 students); 2007 (601 students)
   FSTC 485 Undergraduate Directed Studies 2009 (9 students); 2008 (1 student); 2007 (1 student)
   FSTC 691 Graduate Research (variable) 2009 (4 students); 2008 (4 students); 2007 (2 students)

   Graduate Degrees – Student Name, Degree Earned, Placement (Name of Employer or Institution)
   Cynthia Warren, Ph.D., Institute for Obesity Research and Program Evaluation, Texas A&M University System, College Station, TX 77843-2254

B. Three-year peer-reviewed publications (in chronological order), grants and intellectual property

Books, Book Chapters, White Papers, etc

Peer-reviewed Journal Articles


Presentations / Abstracts

Grants (Funding Agency, Title, Funding Amount, Time Frame)
1.  Texas Department of State Health Services WIC Division  P. Murano (PI)

2.  Texas Department of State Health Services WIC Division  P. Murano (PI)
3. Texas Department of State Health Services WIC Division  P. Murano (PI)

4. Texas Department of State Health Services WIC Division  P. Murano (PI)

5. USDA Food and Nutrition Service  P. Murano. (PI)
“Whole Grain Consumption in Schools: Environmental Scan and Strategies to Facilitate Consumption.” $256,416 (Jan 09 – Dec 09).


Intellectual Property, Patents, Software, etc

C. Service (3-yr Summary)

Department, College, University

National / International Organizations

Editorial Work
BIOGRAPHICAL SKETCH

NAME: Phillips, Timothy D.  
POSITION TITLE:

eRA COMMONS USER NAME: tdphillips47  
Professor

EDUCATION / TRAINING (Begin with baccalaureate or other initial professional education)

<table>
<thead>
<tr>
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<th>DEGREE</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
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<tbody>
<tr>
<td>Mississippi State University</td>
<td>B.S.</td>
<td>1970</td>
<td>Gen. Science/Chemistry</td>
</tr>
<tr>
<td>University of Southern Mississippi</td>
<td>M.S.</td>
<td>1972</td>
<td>Chemistry/Sci. Ed.</td>
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<tr>
<td>University of Southern Mississippi</td>
<td>Ph.D.</td>
<td>1975</td>
<td>Chemistry</td>
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</table>

Positions, Employment, Other Experience

1990 - present: Professor; Intercollegiate Faculty of Toxicology (TAMU)
1990 - present: Professor; Intercollegiate Faculty of Food Science (TAMU)
1990 - present: Professor; Veterinary Integrative Biosciences, College of Veterinary Medicine (TAMU)
2001 - 2005: Chair, Intercollegiate Faculty of Toxicology (TAMU)
2001 - 2006: Director, Center for Food Safety, Texas A&M University (TAMU)

Key Research Areas (Bulleted list)

- Molecular Toxicology
- Environmental Chemistry
- Materials Science

Professional Memberships

Sigma Xi
American Chemical Society
Society of Toxicology
Academy of Toxicological Sciences

Honors / Awards Received (Lifetime, list date)

Sigma Xi National Award for “Innovation” (Chubb Award), 2009
Texas AgriLife (TAES) Senior Faculty Fellow’s Distinction, 2008
FAO JECFA Expert Panel, Food Contaminants and Natural Toxicants, 2007 -2011
Texas A&M System Innovation Award for Research, 2007
TAMU Faculty Distinguished Achievement Award in Research, 2006
Bush Award for Excellence in International Research (Bush Library, 2005)
Sigma Xi Distinguished Scientist Award (TAMU, 2003)
Faculty Fellow distinction, Texas Agricultural Experiment Station, 2002
BIFAD Chair’s Award for Scientific Excellence, Capitol Hill, Washington, D.C., 2002
Pfizer Award for Excellence in Research, 1998
SmithKline Beecham Award for Research, 1993
Engelhard Chemical Corporation Achievement Award for Research, 1989
TAMU Faculty Distinguished Achievement Award in Research, 1988
Texas A&M University System Award in Research, 1986

Teaching, Research and Service (3-yr Summary)

A. Courses Taught: Undergraduate, VIBS 404; Graduate, VIBS 619

Graduate Degrees:


B. Three-year peer-reviewed publications, grants and intellectual property

Books, Book Chapters, White Papers, etc


Peer-reviewed Journal Articles


Presentations/Abstracts


Grants

USAID TAM50 (PI) 08/01/08-07/31/13 15%
Peanut CRSP $180,000/year
Enterosorbent intervention therapies for populations at risk for aflatoxin-related diseases. The major goal of this research is to provide an innovative strategy that will improve prevention and management of acute and chronic aflatoxicosis in Ghana, West Africa.

Engelhard/BASF Chemicals (PI) 09/01/98-10/31/11 10%
TAES H6215 $60,000/year
Development of enterosorbents for mycotoxins in animal feeds. The major goal of this research is develop and characterize materials with high affinity and capacity for aflatoxins, zearalenone, fumonisins, ochatoxin A, ergots and other mycotoxins.

NIH SBIR (PI) 10/01/08-09/31/10 5%
LynnTech, TAMU $40,000/year
Remediation process for aflatoxin contaminated foods. The major objective of this work is to confirm the safety and efficacy of aflatoxin extraction processes from contaminated oilseeds.

Pending:

NIH (Co-I) 09/01/09-08/31/11 5%
NIHES $100,000/year
Immunotoxicity of cubic nanocrystals: Developing mathematical models to elucidate the synergistic effects of nanomaterial size, shape, and surface charge versus band gap energies on the immune response.

Intellectual Property, Patents, Software, etc


C. Service (3-yr Summary)


FAO JECFA Expert Panel, Food Contaminants and Natural Toxicants, 2007-2011
NAME                      POSITION TITLE
Suresh D. Pillai           Professor

eRA COMMONS USER NAME

EDUCATION/TRAINING  *(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)*

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
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<tbody>
<tr>
<td>Loyola College, Madras</td>
<td>B.Sc.</td>
<td>1983</td>
<td>Botany</td>
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<tr>
<td>University of Madras</td>
<td>M.Sc.</td>
<td>1985</td>
<td>Industrial Microbiology</td>
</tr>
<tr>
<td>University of Arizona</td>
<td>Ph.D.</td>
<td>1989</td>
<td>Microbiology &amp; Immunology</td>
</tr>
</tbody>
</table>

A. Positions and Honors.

**Positions and Employment**
2004-present  Professor and TAES Faculty Fellow, Food Safety & Environmental Microbiology Program, Poultry Science & Nutrition & Food Science Departments, Texas A&M University
2004-present  Chair, Graduate Faculty of Biotechnology, Texas A&M University
2003-present  Director, National Center for E-Beam Food Research, Texas A&M University
2000-2005     Associate Director, Institute of Food Science & Engineering, Texas A&M University
2000-2004     Associate Professor & TAES Faculty Fellow - Food Safety and Environmental Microbiology Program, Poultry Science Dept. Texas A&M University
2000-present  Member of Graduate Faculties of Poultry Science, Food Science & Technology, Biotechnology, Veterinary Pathobiology, Toxicology, Soil & Crop Sciences, and Water Program at Texas A&M University.
1998-1999     Associate Professor, Texas A&M Univ. Research Center, El Paso, and Soil and Crop Sciences, Texas A&M University, College Station, Texas.
also         Member, Graduate Faculty, Biology Dept., New Mexico State University, Las Cruces, New Mexico
also         Member, Graduate Faculty, Biology Dept., University of Texas at El Paso. TX
1992- 1998   Assistant Professor, Texas A&M Univ. Research Center, El Paso, and Soil and Crop Sciences, Texas A&M University, College Station, Texas.
1991-1992     Research Scientist - Accelerated Products Development Program, Naval Medical Research Institute, Bethesda, MD.

**Other Experience and Professional Memberships**
American Association for the Advancement of Science
American Society for Microbiology
American Water Works Association
Institute of Food Technologists
International Association for Food Protection
International Society for Microbial Ecology

**Honors**
2008         President’s Travel Fund Award- Society for Applied Microbiology (SFAM)
2008         Distinguished Lecturer, Institute of Food Technologists (IFT)
2007 Distinguished Lecturer, Institute of Food Technologists (IFT)
2007 Texas Environmental Excellence Award (Team-member)
2006- Member, Scientific Advisory Board, Department of Homeland Security Center for Advanced Microbial Risk Assessment
2006- Expert Panel Member, Govt. Accountability Office (GAO), Washington, DC.
2004- Elected Member, Council of Principal Investigators, Texas A&M University
2003-2007 Member, Scientific Advisory Board, Warnex, Inc.
2002 TAES Faculty Fellow, Agriculture Program, Texas A&M University
2001 Appointed Member, National Academy of Science/National Research Council Committee on Toxicants and Pathogens in Biosolids.
2001 Nominee, Texas A&M University Faculty Fellows Program
2000 Member, Faculty Senate, Texas A&M University
1988 Graduate Tuition Scholarship, University of Arizona, Tucson.
1986 Graduate Academic Scholarship, University of Arizona, Tucson.
1988 University of Arizona Foundation Award as a Graduate Teaching Assistant
1988 Kate C. Lewis Academic Scholarship, University of Arizona, Tucson

B. Technology Commercialization Efforts
2009 High energy electron beam for disinfection of municipal biosolids. Suresh D. Pillai and Alexis Lazarine (provisional patent-submitted)

C. Peer-reviewed publications (since 2008) * represents Pillai’s students and post-doctoral fellows,


**C. Research Support. (current)**


**Co-Investigator** - Development and Evaluation of Flat Panel X-ray Source - Advanced Technology Program of the National Institute of Standards and Technology (NIST) -$2,000,000 (2/2007-10/2009)

**Principal Investigator** - Concentrating bacterial spores from milk and juices using dielectrophoresis based microfluidic capture systems. Principal Investigator. DHS/ National Center for Food Protection and Defense-University of Minnesota. (9/07-12/09) $230,000


**Principal Investigator** Establishment of Manufacturing, Assembly, Packaging, Labeling and Electronic Sterilization (MAPLES) facility Principal Investigator. NASA/Jacobs: $ 45,346

**Principal Investigator** National Center for Electron Beam Food Research. USDA-CSREES (8/04-7/09) $ 608,080
BIOGRAPHICAL SKETCH

NAME: Mian N Riaz
POSITION TITLE: Director

eRA COMMONS USER NAME: mnriaz

EDUCATION / TRAINING (Begin with baccalaureate or other initial professional education)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Agriculture, Faisalabad, Pak</td>
<td>BS.C (Honors)</td>
<td>1985</td>
<td>Agriculture, Major in Food Technology</td>
</tr>
<tr>
<td>University of Agriculture, Faisalabad, Pak</td>
<td>MS.C (Honors)</td>
<td>1987</td>
<td>Food Technology</td>
</tr>
<tr>
<td>University of Maine, Orono, USA</td>
<td>Ph.D</td>
<td>1992</td>
<td>Food Science and Nutrition</td>
</tr>
</tbody>
</table>

Positions, Employment, Other Experience

- Director– Food Protein Research & Development Center; Chemical Engineering Division of the Texas Engineering Experiment Station, C Artie McFerrin Chemical Engineering Department, (May 2006 to Present).
- Interim Director– Food Protein Research & Development Center; Chemical Engineering Division of the Texas Engineering Experiment Station, C Artie McFerrin Chemical Engineering Department, (May 2005 to May 2006).
- Head - Extrusion Technology Program and Research Scientist, Food Protein Research & Development Center, Texas A & M University System, (Jan. 2003-Present).
- Graduate Faculty, Food Science and Technology Program, Texas A&M University, (1998 to Present).
- Faculty, Center of Food Processing & Engineering, Institute of Food Science & Engineering, Texas A&M University, (1995-2005)

Key Research Areas (Bulleted list)

- Extrusion Processes
- Food Technology
- Extruded Snacks
- Ethnic and Religious Food
- Aquaculture Feed
- Feeds and Pet Food Extrusion
- Oil Seed Processing
- Recycling of Food By Products
- Food Product Development
- Texturization of Vegetable Protein

Professional Memberships
• Professional Member of Institute of Food Technologist; (Member of Alamo IFT Section; Product Development Division; Religious and Ethnic Foods Division)

• American Oil Chemists' Society (Member of Protein and Co-Product)  
• American Association of Cereal Chemists  
• Phi Tau Sigma Honorary Society  
• Phi Beta Delta (Honor Society for International Scholars)  
• Pakistan Society of Food Scientist & Technologists (Life time Member)

Honors / Awards Received (Lifetime, list date)

Teaching, Research and Service (3-yr Summary)

A. Courses Taught, Semester, Cr Hrs, Number of Students Enrolled

None

Graduate Degrees – Student Name, Degree Earned, Placement (Name of Employer or Institution)  
Graduated Students where I was a committee member

Youngmok Kim. Nutrition and Food Science (Ph.D)  
Factors influencing antioxidant phytochemical stability during storage of ready to drink teas from green tea (Camellia sinensis), yaupon holly (Ilex vomitoria) and mamaki (Pipturus albidus).

Delik Austin; Food Science and Technology (Ph.D).  
The Effects of Phenolics Sorghum bicolor (L.) Moench on Starch Digestibility1.

Monica De La Torre: Food Science and Technology (MS) 2007 .  
The Properties of Baked and Fried tortilla Chips Fortified with Mechanically-Expelled Soy Flour.

Marc Barron: Food Science and Technology (MS) 2007.  
Expanded Snack with Flex seed and Sorghum.

B. Three-year peer-reviewed publications (in chronological order), grants and intellectual property

Books, Book Chapters, White Papers, etc


Peer-reviewed Journal Articles


Presentations / Abstracts


Cereal, Mixed Feed and Veterinary 2009. Moscow, Russia. Feb. 5.


21. Riaz, M. N. 2008. Production of Snack Food Pellet using Extrusion Technology – Presented at the International Training Workshop on extrusion Technology. Organized by Food Protein R&D Center Texas A&M University College Station, Texas, USA, & National Institute of Food Science and Technology University of Agriculture, Faisalabad, Pakistan, Aug. 16

22. Riaz, M. N. 2008. Raw Material properties for Soy Based Textured Proteins and Production of Different types of TVP using Extruder – Presented at the International Training Workshop on extrusion Technology. Organized by Food Protein R&D Center Texas A&M University College Station, Texas, USA, & National Institute of Food Science and Technology University of Agriculture, Faisalabad, Pakistan, Aug. 16

23. Riaz, M. N. 2008. Different Types of Extruder and their Role in Food and Feed Industry – Presented at the International Training Workshop on extrusion Technology. Organized by Food Protein R&D Center Texas A&M University College Station, Texas, USA, & National Institute of Food Science and Technology University of Agriculture, Faisalabad, Pakistan, Aug. 16

24. Riaz, M. N. 2008 Extruder’s Application for Oilseed Crop (Full fat soy, Cottonseed, etc) – Presented at the International Training Workshop on extrusion Technology. Organized by Food Protein R&D Center Texas A&M University College Station, Texas, USA, & National Institute of Food Science and Technology University of Agriculture, Faisalabad, Pakistan, Aug. 17

25. Riaz, M. N. 2008. Extrusion of Aquatic Feed- – Presented at the International Training Workshop on extrusion Technology. Organized by Food Protein R&D Center Texas A&M University College Station, Texas, USA, & National Institute of Food Science and Technology University of Agriculture, Faisalabad, Pakistan, Aug. 17


Grants (Funding Agency, Title, Funding Amount, Time Frame)


9. Coating Cottonseed with Anti-fungal Agent to Prevent Aflatoxin Production during Storage. Texas Department of Agriculture, M. N. Riaz, March 1 2006 - Aug. 31, 2006. $20,000

Intellectual Property, Patents, Software, etc

C. Service (3-yr Summary)

Department, College, University

• Member of the Executive Committee of Graduate Food Science and Technology Program; Texas A&M University, (2007-2009)

National / International Organizations

• Chair; Religious & Ethnic Food Division of IFT (2007,08,09)
• Chair; Junior/Senior Scholarship Jury, IFT, 2009
• Member of ADM/PCP Engineering/Technology Outstanding Paper Award, AOCS, 2009
• AACC Book Committee Member (2004- Present)
• IFT Food Science Communicator (1998-Present)

Editorial Work

Food Science and Technology Graduate Program (PhD)

NAME: Lloyd W. Rooney  
POSITION TITLE: Regents Professor and Faculty Fellow

eRA COMMONS USER NAME: 

EDUCATION / TRAINING (Begin with baccalaureate or other initial professional education)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
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<tr>
<td>Kansas State University, Manhattan, KS</td>
<td>BS</td>
<td>1961</td>
<td>Nutrition</td>
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<tr>
<td>Kansas State University, Manhattan, KS</td>
<td>PhD</td>
<td>1966</td>
<td>Cereal Biochemistry</td>
</tr>
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</table>

Positions, Employment, Other Experience

1961-1962 US Public Health Fellow and Graduate Assistant, Department of Agricultural Biochemistry, University of Minnesota
1962 Crop Surveyor/Field Person, Int'l Multifoods, Inc., Minneapolis, MN
1963-1965 Graduate Research Assistant, Grain Sci. Dept., Kansas State Univ.
1965-1970 Assistant Professor, Cereal Quality Lab, Texas A&M University
1970-1977 Associate Professor, Food Science and Technology, Cereal Quality Lab, TAMU
1977-1999 Professor, Food Science and Technology, Cereal Quality Lab, TAMU
2000-2004 Professor and Faculty Fellow, Food Science and Technology, Cereal Quality Lab, TAMU
2004-present Regents Professor and Faculty Fellow, Food Science and Technology, Cereal Quality Lab, TAMU

Key Research Areas (Bulleted list)

- Identified special sorghums with levels of antioxidants exceeding blueberries; some contain unique flavanoids with anti-inflammatory and anti-cancer activities
- Refined HPLC techniques for sorghum tannins / anthocyanins which are promising sources of antioxidants/colorants
- Provided information on food processing quality and attributes of sorghum, methods of measuring food and feed quality and its relation to structure of the kernel which is used extensively around the world
- Provided objective information internationally on the major uses of sorghum and millet, demonstrated kernel attributes that significantly affect processing quality
- Devised simple methods with international scientists to define / evaluate sorghum / pearl millet quality in breeding programs
- Developed fundamental information on alkaline cooking characteristics of maize and how to measure corn quality in crop improvement programs, led multi-state program to improve food quality of USA corn information
- Modified, evaluated processes for production of dry masa flours; applied extrusion, micronization and other processes to sorghum and maize
- Interacted with 3 AgriLife crop improvement programs - corn, sorghum and wheat
- Evaluated quality of early generation wheats to help breeders release 20+ wheat cultivars that have been productive and widely adapted
- Developed techniques for evaluating corn / flour tortilla texture and interaction of ingredients/processing aids (enzymes, chemicals) to reduce staling
- Corn and wheat tortilla production / improvements - collaborated with Tortilla Industry Association / Snack Food Association
- Processing of snack foods, maize, sorghum and millet
Food Science and Technology Graduate Program (PhD)

Post-harvest technology, nutrition, food and feed processing of grains in Mexico, El Salvador, Nicaragua, Guatemala, Mali, Nigeria, Niger, Senegal, Burkina Faso, Zimbabwe, S. Africa, India, Honduras, Colombia, Argentina, Brazil, Venezuela, China, Thailand, Hong Kong, Korea, Australia, Japan

Professional Memberships
Institute of Food Technologists - National, Local (1965-present)
Phi Tau Sigma Food Science Honorary - National, Charter member of Texas A&M Chapter
C.A.S.T., Phi Eta Sigma, Phi Kappa Phi, Phi Lambda Upsilon, Sigma Xi, Gamma Sigma Delta

Reviewer: numerous journals, project review panels

Honors / Awards Received (Lifetime, list date)
Texas A&M Presidential Award of Excellence for Faculty Service to International Students (2007)
Yum Kax Research Award for Nixtamalization, 1st International Nixtamalization Congress, Queretaro, Mexico (2006)
Service Award for Lifetime Support of Global Sorghum Development, 5th National Australian Sorghum Conference (2006)
TAMU Regents Professor Award (2004)
INTSORMIL Recognition - Principal Investigator, 22 years, Distinguished Performance Award (2002)
Mexican National Academy of Science International Member (2001), Distinguished Researcher Award
Texas A&M University Former Students Distinguished Performance Award in Research (1999)
American Association of Cereal Chemistry International Distinguished Teacher Award (1997); Northwest Section, Geddes Memorial Lecture Award (1999); AACC International Fellow Award (1993); Corn Refiners Award, Best Paper (1984); Best Poster (1990)
American Society of Agronomy, Best Paper Award (1974)
National Sorghum Producers Association Distinguished Service Award for Sorghum Utilization Research (1985)

Teaching, Research and Service (3-yr Summary)
Courses Taught, Semester, Cr Hrs, Number of Students Enrolled
(see attached form)

Graduate Degrees – Student Name, Degree Earned, Placement (Name of Employer or Institution)
(see attached form)

HH. Three-year peer-reviewed publications (in chronological order), grants and intellectual property

Books, Book Chapters, White Papers, etc


Peer-reviewed Journal Articles


Presentations / Abstracts


Boswell, Sara, McDonough, Cassandra and Rooney, L.W. 2009. Development of taste improved gluten-free bread. IFT Conference, Anaheim, CA, June 7-10


Rooney, L.W. 2009. Other ingredients for snack foods: rice, sorghum extrusion properties. Snack Foods Processing Short Course, April 5-10, College Station, TX.

Njongmeta, N.L., Dykes, L., Rooney, L.W. 2009. Flavonoid profile and antioxidant activity levels of special sorghums. 12th Annual Student Research Week, College Station, TX, March 23-27 (poster)


Rooney, Lloyd W. 2008. Experience with sorghum processed food products in different countries. INTSORMIL, Building a Supply Chain for Millet and Sorghum Food Processing Workshop. August 12-14, Bamako, Mali.


Cardenas-Hinojosa, A.P., Njongmeta-Nenge, L.A., Dykes, L., Cisneros-Zevallos, L. and Rooney, Lloyd W. 2008. Concentration and temperature stability of anthocyanins in black sorghum. 11th Annual Student Research Week, College Station, TX, March 24-28 (Taxonomy-3rd Placed, Environmental Health and Department Safety Recognition)

Cardenas, Ana. 2008. Concentration effects and temperature stability of 3-deoxyanthocyanins from black sorghum bran. Student Research Week, TAMU. March 27, College Station, TX (3rd Place Prize-Poster and also Safety Recognition Award)

Njongmeta, Nenge, Cardenas-Hinojosa, A.P., Dykes, Linda, Cisneros-Zevallos, L. and Rooney, Lloyd W. 2008. Solvents for the extraction of 3-deoxyanthocyanins from sorghum. 11th Annual Student Research Week, College Station, TX, March 24-28 (poster, Taxonomy-3rd Place, Interdisciplinary Research Ribbon Recognition, Environmental Health and Department Safety Recognition)

Njongmeta, Nenge. 2008. Concentration effects and temperature stability of 3-deoxyanthocyanins from black sorghum bran. Student Research Week, TAMU. March 27, College Station, TX (3rd place prize on poster + 2 awards: Environmental Health & Safety Recognition Award + Outstanding Accomplishments in Interdisciplinary Research)


http://www.aaccnet.org/meetings/2007/abstracts/p07ma50.htm

http://www.aaccnet.org/meetings/2007/abstracts/p07ma51.htm


Calderon, Vilma. 2007. Sorghum cooking quality and effect of pretreatment on physical properties of sorghum kernels. (Spanish oral) Program Cooperativo CentroAmerica de Cultivos y Animales (PCCMCA), April 22-28, Guatemala City.


Rooney, Lloyd W. 2007. Phytochemicals and other healthy components of cereals. 34th Annual Texas Human Nutrition Conference, TAMU, February 2, College Station, TX.

Grants (Funding Agency, Title, Funding Amount, Time Frame)
(see attached CSREES 2005 form)

Intellectual Property, Patents, Software, etc
Special sorghum brans in healthy foods (patent pending)

II. Service (3-yr Summary)
IFT Food Expositions: numerous posters by students/colleagues
AACC International: numerous posters presented plus our graduate student product development teams won first ($1,000) and second place ($500) in the product development competition. They also had posters for each of their products.
INTSORMIL: made 2 trips to Central America, travel to South Africa, Mali, Mexico, Botswana and Zambia.
EAP (Escuela Agricola Panamericana), Zamorano, Honduras, 2008: review EAP programs
Workshops in which our students present research data:
Snack Food Processing: Tortilla Chips and Extruded Snacks (organize, co-chair with Food Protein R&D, College Station, TX (1996-present - 40+ participants annually).
Our graduate students present laboratory demonstrations, posters and illustrate talks to international-domestic industry clientele. Presentations include GMO in corn, nixtamalization process, tortilla shelf life, corn quality and related topics.
Snack Foods Association (SFA): Consultant, served on the Corn Technology Committee since 1982 in numerous capacities, chaired planning committees for technical corn seminars and workshops sponsored by SFA. Led multi-state program that produced corn hybrids with improved snack food processing properties. This led to long-term support (1984-1996) for Yellow Food Corn Quality and Performance testing conducted by several universities and private industry. Today white and yellow food corn hybrids produce high yields of superior quality corn from Texas to N. Illinois. Corn processing research has been conducted with funds generated from SFA members, Texas Corn Producers Association, Mexican companies and other sources.

Department, College, University
Serve on various panels, committees, etc.

National / International Organizations
INTSORMIL: I serve as principal investigator of a major project on quality in the USAID funded Collaborative Research Support program since 1979. This project has generated $3 million plus for my sorghum/millet quality and nutritional improvement. Major commitments were in Mali, Honduras, El Salvador, Nicaragua and Mexico. Developed a food laboratory in Institute of Rural Economy in Mali that has produced value-added products and works with plant breeders to improve the food quality of sorghum, millet and other grains. Coordinated the INTSORMIL program in Mali as Country Coordinator (1987-1993). I was responsible for a $100,000/year research budget. Traveled to Mali annually from 1979 to 1996 to collaborate on cereal technology, grain quality evaluations and value-added processing. Continue to consult with colleagues in West African supply chain management workshops, plus workshop conferences in Southern Africa including South Africa, Botswana and Zambia.
In Mexico, El Salvador and Honduras: developed procedures for evaluation of maize / sorghum quality for tortillas and related products. Techniques have led to sorghum cultivars with
improved tortilla quality in Central America. Assisted in development of grain standards for maize, sorghum and other grains in Central America. Currently involved in Food Science/Cereal Science Teaching and Research activities at the EAP, Zamorano, Honduras and collaboration in El Salvador with CENTA. Host EAP student interns annually.

Provided technical assistance to grain and food processors in Japan, China, S. Africa, Zimbabwe, Botswana, Tanzania, Kenya, Mali, Burkina, Nigeria, Guatemala, Honduras, El Salvador, Brazil, Venezuela, Colombia, Argentina, Senegal, Philippines, Taiwan, Thailand and India.

Presented sorghum quality briefings in Ireland, United Kingdom, France and Netherlands in 2008.

NAME: Leon H. Russell  
POSITION TITLE: 
Professor - Veterinary Anatomy and Public Health
Professor - Medical Microbiology and Immunology
Professor - Food Science and Technology
Professor - Toxicology
Professor - Epidemiology; School of Rural Public Health
Professor - Texas A & M Health Sciences Center Graduate Faculty

EDUCATION / TRAINING (Begin with baccalaureate or other initial professional education)

<table>
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<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
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<tbody>
<tr>
<td>University of Missouri</td>
<td>B.S</td>
<td>1953</td>
<td>Animal Science</td>
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<tr>
<td>University of Missouri</td>
<td>D.V.M</td>
<td>1956</td>
<td>Veterinary Medicine</td>
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<tr>
<td>Tulane University</td>
<td>M.P.H</td>
<td>1958</td>
<td>Epidemiology</td>
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<tr>
<td>Texas A&amp;M University</td>
<td>Ph.D.</td>
<td>1965</td>
<td>Microbiology</td>
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Positions, Employment, Other Experience

Texas A&M University:
2002-present Professor Health Sciences Center Graduate Faculty
1998-present Professor Epidemiology; Rural Public Health
1996-present Professor Toxicology
1978-present Professor Food Science and Technology
1977-present Professor Medical Microbiology and Immunology
1969-present Professor Veterinary Anatomy and Public Health
1976-1979 Professor Veterinary Microbiology and Parasitology
1965-1969 Associate Professor Veterinary Public Health
1959-1965 Assistant Professor Veterinary Public Health

CLINICAL SPECIALTY/BOARD CERTIFICATION:
Distinguished Diplomate, American College of Veterinary Preventive Medicine (1989)
Diplomate (1985), Subspecialty of Epidemiology (President 1985-87)
Diplomate, American College of Veterinary Preventive Medicine (1979)
Diplomate, American Board of Public Health (1965)

Key Research Areas (Bulleted list)

Professional Memberships

Honors / Awards Received (Lifetime, list date)

Phi Tau Sigma, Gamma Sigma Delta, Phi Kappa Phi, Sigma Xi, Phi Zeta
Texas Veterinary Medical Association Faculty Achievement Award (1969)
Texas A&M University Veterinary Students "Good Stick Award" (1974)
Norden Distinguished Teaching Award (1977)
Former Students Association Faculty Distinguished Achievement Award in Student Relationships (1979)
Food Science and Technology Graduate Program (PhD)

Former Students Association, College of Veterinary Medicine Teaching Excellence Award (1982)  
American Veterinary Medical Association Certificate of Appreciation (1984)  
Association of Teachers of Veterinary Public Health and Preventive Medicine of the United States and  
Canada, Award of Recognition (1984)  
Alumnus of the Year, University of Missouri, College of Veterinary Medicine, Alumni Association (1985)  
Texas Veterinary Medical Association Faculty Achievement Award in Research (1988)  
American College of Veterinary Preventive Medicine Certificate of Appreciation (1988)  
American College of Veterinary Preventive Medicine "Distinguished Diplomate" (1989)  
TAMU Deputy Chancellor's Award for Excellence in Graduate Teaching (1990)  
American College of Veterinary Preventive Medicine Certificate of Appreciation (1990)  
American Veterinary Epidemiology Society, Honorary Diploma (1990)  
Louisiana Veterinary Medical Association, Resolution of Recognition (1991)  
Commonwealth of Kentucky, Gov. B.C. Jones, Commissioned as Kentucky Colonel (1992)  
El Paso, Texas, Mayor Larry Francis, Key to the City of El Paso (1994)  
University of Missouri, College of Veterinary Medicine, Recognition of Service (1994)  
Association of Military Surgeons of U.S., General James A. McCallam Award (1994)  
Texas Veterinary Medical Association, President’s Award (1995)  
Appointed to the Texas Committee on Transmissible Spongiform Encephalopathies by Texas Department  
of Health (1997).  
Helwig-Jennings Award (1998)  
Distinguished Membership, Texas Veterinary Medical Association (1998)  
Appointed to the Texas Department of Health’s Committee on Bioterrorism (1998-1999)  
Selected as “The B.G. Russell McNellis Memorial Guest Lecturer” for the keynote address at the 49th  
International Military Veterinary Medicine Symposium, Chiemsee, Germany (October, 1998)  
Appointed by the U.S. Secretary of Agriculture to the National Advisory Committee on Microbiological  
Criteria (1999-2001)  
XIIth International Veterinary Congress Prize (July, 2000)  
Received a certificate of appreciation from the American Board of Veterinary Specialties for 6 years of  
Commencement Speaker of the College of Veterinary Medicine, University of Missouri, Columbia, on  
Keynote Speaker of the Opening Plenary Session of the13th Congress of Chile Veterinary Medicine,  
November 4, 2004, University of Austral, Valdivia, Chile. Title of the one hour lecture: “The Most  
Important Problems of Food Safety”.  
Southwest Veterinary Symposium Award for World Leadership in Veterinary Medicine , Ft. Worth, TX,  
September 2005.  
Keynote Speaker of Opening Plenary Session of the Veterinary Public Health Congress in Brazil,  
November 2005: “Bioterrorism”  
Keynote Speaker at 2006 World Veterinary Day. January 5, 2006, Taiwan: The Global Role of the  
Veterinarian”  
AVMA President's Award, July 15, 2006, Honolulu, Hawaii  
Keynote Speaker at the St. George’s University College of Veterinary Medicine’s “White Coat  
Ceremony”, August 22, 2006, St. George, Grenada

Teaching, Research and Service (3-yr Summary)
A. Courses Taught, Semester, Cr Hrs, Number of Students Enrolled

Undergraduate:

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<th>Institution</th>
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<th>% of Course</th>
<th>Formal Contact Hr</th>
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<td>(Food Toxicology &amp; Safety)</td>
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Professional:

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<td>(Regulatory Issues)</td>
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Graduate:

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<th>% of Course</th>
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<td>VIBS 607</td>
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<td>(Applied Epidemiology)</td>
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<td>VAPH 615</td>
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<td>Web-based</td>
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<td>Summer</td>
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<td>VAPH 633</td>
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<td>Spring</td>
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Graduate Degrees – Student Name, Degree Earned, Placement (Name of Employer or Institution)

Current graduate Students:

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<th>Name</th>
<th>Degree</th>
<th>Institution</th>
<th>Committee Member</th>
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<tr>
<td>*Grady, G.</td>
<td>Ph.D.</td>
<td>TAMU</td>
<td>Member</td>
</tr>
<tr>
<td>Jenny Finks</td>
<td>M.S.</td>
<td>TAMU</td>
<td>Member</td>
</tr>
<tr>
<td>Johnson, Mark</td>
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<td>TAMU</td>
<td>Member</td>
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<tr>
<td>Ming, C.G.</td>
<td>M.S.</td>
<td>TAMU</td>
<td>Member</td>
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<td>Meyer, J.M.</td>
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<td>TAMU</td>
<td>Member</td>
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<tr>
<td>Murrel, J.A.</td>
<td>M.S.</td>
<td>TAMU</td>
<td>Member</td>
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<tr>
<td>Stansky, N.</td>
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<td>TAMU</td>
<td>Member</td>
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<tr>
<td>Wong, Tsui-Yin</td>
<td>Ph.D.</td>
<td>TAMU</td>
<td>Member</td>
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Food Science and Technology Graduate Program (PhD)

Wynalda, RA  MS  TAMU  Member  
Zindler, C.  M.S.  TAMU  Member  

* Graduated

B. Three-year peer-reviewed publications (in chronological order), grants and intellectual property

Books, Book Chapters, White Papers, etc

Peer-reviewed Journal Articles

Presentations / Abstracts

Grants (Funding Agency, Title, Funding Amount, Time Frame)

Intellectual Property, Patents, Software, etc

C. Service (3-yr Summary)

Department, College, University

National / International Organizations

World Veterinary Association, President (2005-2008)

Editorial Work
NAME: Jeffrey W. Savell

POSITION TITLE: Regents Professor and E.M. “Manny” Rosenthal Chairholder

EDUCATION / TRAINING (Begin with baccalaureate or other initial professional education)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
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<tr>
<td>Texas A&amp;M University</td>
<td>B.S.</td>
<td>1975</td>
<td>Animal Science</td>
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<tr>
<td>Texas A&amp;M University</td>
<td>M.S.</td>
<td>1976</td>
<td>Animal Science (emphasis in meat science)</td>
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<tr>
<td>Texas A&amp;M University</td>
<td>Ph.D.</td>
<td>1978</td>
<td>Animal Science (emphasis in meat science)</td>
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</table>

Positions, Employment, Other Experience

1976-1977 Instructor, Department of Animal Science, Texas A&M University
1977-1979 Meats Specialist, Texas Agricultural Extension Service, Texas A&M University System
1979-1983 Assistant Professor, Department of Animal Science, Texas A&M University
1983-1988 Associate Professor, Department of Animal Science, Texas A&M University
1988 to date Professor, Department of Animal Science, Texas A&M University
1989 to date Section Leader, Meat Science Section
1992 to date E.M. “Manny” Rosenthal Chairholder, Department of Animal Science, Texas A&M University
2005 to date Professor, Chinese Academy of Agricultural Sciences, Beijing, China
2006 to date Regents Professor, Department of Animal Science, Texas A&M University.

Key Research Areas (Bulleted list)

Professional Memberships
American Society of Animal Science
Institute of Food Technologists
International Association for Food Protection
American Meat Science Association

Honors / Awards Received (Lifetime, list date)

Teaching emphasis
Deputy Chancellor’s Distinguished Performance Award for Undergraduate Teaching — 1984
Distinguished Achievement Award in Teaching, Association of Former Students, Texas A&M University — 1988
Outstanding Professor Award, Texas A&M University Collegiate FFA — 1992
American Meat Science Association’s Distinguished Teaching Award — 1997
Namesake (Camp Savell), T-Camp, Texas A&M University, 1997
Honor Professor Award, given by the College of Agriculture and Life Sciences Student Council, 42nd Annual Agriculture and Life Sciences Convocation — 1998
Harry L. Rudnick Educator’s Award, North American Meat Processors Association, 2003
Distinguished Achievement Award in Teaching, College Level, Association of Former Students — 2008
Food Science and Technology Graduate Program (PhD)


Research emphasis
Deputy Chancellor for Agriculture’s Distinguished Performance Award for Team Research (for electrical stimulation) — 1982
Southern Section, American Society of Animal Science Outstanding Young Scientist Award — 1985
Deputy Chancellor for Agriculture’s Award in Excellence for Team Research (for the National Consumer Retail Beef Study) — 1986
George Strathearn Memorial Research Award, California Beef Council — 1987
Beef Merchandising Award, Texas Cattle Feeders Association — 1988
Meat Research Award, American Society of Animal Science — 1990
Distinguished Research Award, American Meat Science Association — 1991
Vice Chancellor for Agriculture’s Award in Excellence for Team Research (for the Beef CARDS program) — 1993
Vice Chancellor’s Award in Excellence — Research on Campus — 1997
Vice Chancellor’s Award in Excellence Team Award — 1998
Highly Cited Researcher, ISI HighlyCited.com — 2001
Vice Chancellor’s Award in Excellence for Team Research (Beef Safety Team) – 2004
Vice Chancellor’s Award in Excellence for System Academic Partnership (Stress Physiology Team) – 2008.

Extension/public service emphasis
Progressive Farmer Magazine’s Southwestern Man of the Year in Service to Agriculture — 1989
Texas Agricultural Extension Service Superior Service Team Award (Beef 101) — 1996
Vice Chancellor’s Award in Excellence for Partnerships (Beef 706) — 1997
Vice Chancellor’s Award in Excellence Team Award (Beef 101) — 2003
National Meat Association E. Floyd Forbes Award — 2005

Teaching, Research and Service (3-yr Summary)

A. Courses Taught, Semester, Cr Hrs, Number of Students Enrolled

<table>
<thead>
<tr>
<th>Courses Taught</th>
<th>Semester</th>
<th>Credit Hours</th>
<th>Students Enrolled</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANSC/FSTC 307 – Meats</td>
<td>Spring, 2007</td>
<td>3</td>
<td>130</td>
</tr>
<tr>
<td>ANSC/FSTC 307 – Meats (Honors section)</td>
<td>Spring, 2007</td>
<td>3</td>
<td>30</td>
</tr>
<tr>
<td>ANSC 437 – Marketing and Grading of Livestock and Meat</td>
<td>Spring, 2007</td>
<td>3</td>
<td>95</td>
</tr>
<tr>
<td>ANSC 627 – Carcass Composition and Quality</td>
<td>Spring, 2007</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>ANSC/FSTC 307 – Meats</td>
<td>Summer, 2007</td>
<td>3</td>
<td>30</td>
</tr>
<tr>
<td>ANSC/FSTC 307 – Meats</td>
<td>Fall, 2007</td>
<td>3</td>
<td>143</td>
</tr>
<tr>
<td>ANSC 437 – Marketing and Grading of Livestock and Meat</td>
<td>Fall, 2007</td>
<td>3</td>
<td>110</td>
</tr>
<tr>
<td>ANSC/FSTC 307 – Meats</td>
<td>Spring, 2008</td>
<td>3</td>
<td>125</td>
</tr>
<tr>
<td>ANSC/FSTC 307 – Meats (Honors section)</td>
<td>Spring, 2008</td>
<td>3</td>
<td>25</td>
</tr>
<tr>
<td>ANSC 437 – Marketing and Grading of Livestock and Meat</td>
<td>Spring, 2008</td>
<td>3</td>
<td>109</td>
</tr>
</tbody>
</table>
Graduate Degrees – Student Name, Degree Earned, Placement (Name of Employer or Institution)

<table>
<thead>
<tr>
<th>Student Name</th>
<th>Degree Earned</th>
<th>Major</th>
<th>Placement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sitka Powell, LeeAnn</td>
<td>M.S.</td>
<td>ANSC</td>
<td>Quality assurance, foodservice company</td>
</tr>
<tr>
<td>Smith, Robert D.</td>
<td>M.S.</td>
<td>ANSC</td>
<td>Quality assurance, beef packing company</td>
</tr>
<tr>
<td>Laster, Megan A.</td>
<td>M.S.</td>
<td>ANSC</td>
<td>Product development, meat and poultry company</td>
</tr>
<tr>
<td>Kim, Yuan Hwan</td>
<td>Ph.D.</td>
<td>FSTC</td>
<td>Post-doctoral student, Iowa State University</td>
</tr>
<tr>
<td>Nicholson, John David W.</td>
<td>M.S.</td>
<td>ANSC</td>
<td>Student</td>
</tr>
<tr>
<td>Nicholson, Kristin L.</td>
<td>Ph.D.</td>
<td>ANSC</td>
<td>Undergraduate advisor, Department of Nutrition and Food Science, Texas A&amp;M University</td>
</tr>
<tr>
<td>Metteauer, Eric A.</td>
<td>M.S.</td>
<td>ANSC</td>
<td>Veterinary medicine student</td>
</tr>
<tr>
<td>Haneklaus, Ashley N.</td>
<td>M.S.</td>
<td>ANSC</td>
<td>Ph.D. student, Department of Animal Science, Texas A&amp;M University</td>
</tr>
<tr>
<td>West, Sarah E.</td>
<td>M.S.</td>
<td>ANSC</td>
<td>Quality assurance, retail food store</td>
</tr>
<tr>
<td>Hudek, Jarrett F.</td>
<td>M.S.</td>
<td>ANSC</td>
<td>Pre-management trainee, foodservice company</td>
</tr>
<tr>
<td>Genho, Daniel P.</td>
<td>M.S.</td>
<td>ANSC</td>
<td>Research and development, beef processing company</td>
</tr>
<tr>
<td>Garcia, Lyda G.</td>
<td>Ph.D.</td>
<td>ANSC</td>
<td>Post-doctoral student, Texas Tech University</td>
</tr>
<tr>
<td>Dillon, James T.</td>
<td>M.S.</td>
<td>ANSC</td>
<td>Family ranch</td>
</tr>
<tr>
<td>Muras, Tiffany M.</td>
<td>M.S.</td>
<td>FSTC</td>
<td>Quality assurance, food company</td>
</tr>
</tbody>
</table>

B. Three-year peer-reviewed publications (in chronological order), grants and intellectual property

Books, Book Chapters, White Papers, etc.

Agricultural Products Press™, an Imprint of the Haworth Press, Inc.


Peer-reviewed Journal Articles


Presentations / Abstracts


Grants (Funding Agency, Title, Funding Amount, Time Frame)

<table>
<thead>
<tr>
<th>Funding Agency</th>
<th>Title</th>
<th>Funding Amount</th>
<th>Time Frame (FY)</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Cattlemen’s Beef Association on behalf of the Cattlemen’s Beef Board</td>
<td>National market cow and bull beef quality audit -- 2007: A survey of producer-related defects in market cows and bulls</td>
<td>$117,100</td>
<td>2007</td>
</tr>
<tr>
<td>American Meat Institute</td>
<td>Evaluation of alternative cooking and cooling procedures for large, intact meat products to achieve lethality and stabilization microbiological performance standards Foundation</td>
<td>$70,500</td>
<td>2007</td>
</tr>
<tr>
<td>National Cattlemen’s Beef</td>
<td>Tenderness, flavor, and yield</td>
<td>$60,000</td>
<td>2007</td>
</tr>
<tr>
<td>Association on behalf of the Cattlemen’s Beef Board</td>
<td>Assessments of dry aged beef</td>
<td>Non-Conforming Products Symposium</td>
<td>$18,500</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>National Cattlemen’s Beef Association on behalf of the Cattlemen’s Beef Board</td>
<td>Evaluating the impact of gender, fatness, muscling and weight on the cutability of Yield Grade 4 beef carcasses</td>
<td>$60,000</td>
<td>2008</td>
</tr>
<tr>
<td>National Cattlemen’s Beef Association on behalf of the Cattlemen’s Beef Board</td>
<td>Tracing pathogen contamination through the post-harvest environment</td>
<td>$61,400</td>
<td>2008</td>
</tr>
<tr>
<td>National Cattlemen’s Beef Association on behalf of the Cattlemen’s Beef Board and Texas Beef Council</td>
<td>Survey of pathogen interventions and best practices used by beef harvesters and processors</td>
<td>$50,000</td>
<td>2008</td>
</tr>
<tr>
<td>National Cattlemen’s Beef Association on behalf of the Cattlemen’s Beef Board</td>
<td>Merchandising strategies for merchandizing heavy-weight beef subprimals</td>
<td>$60,000</td>
<td>2008</td>
</tr>
<tr>
<td>National Cattlemen’s Beef Association on behalf of the Cattlemen’s Beef Board and Texas Beef Council</td>
<td>Escherichia coli O157:H7 and Salmonella spp. risk assessment during the production of marinated beef strips and roasts</td>
<td>$60,000</td>
<td>2008</td>
</tr>
<tr>
<td>National Cattlemen’s Beef Association on behalf of the Cattlemen’s Beef Board</td>
<td>Beef Nutrient Database Improvement Research — Phase 1</td>
<td>$59,740</td>
<td>2008</td>
</tr>
<tr>
<td>Center Intervet, a part of Schering-Plough</td>
<td>Retail cutting yields of subprimals from cattle treated with Zilmax</td>
<td>$9,600</td>
<td>2008</td>
</tr>
<tr>
<td>National Cattlemen’s Beef Association on behalf of the Cattlemen’s Beef Board</td>
<td>Evaluation of different temperatures and dwell times of hot water used to achieve maximum effectiveness in reducing levels of Salmonella Typhimurium, Escherichia coli O157:H7 and coliforms and Escherichia coli on beef carcass surfaces</td>
<td>$65,080</td>
<td>2008</td>
</tr>
<tr>
<td>National Cattlemen’s Beef Association on behalf of the Cattlemen’s Beef Board</td>
<td>The impact of carcass trimming during the fabrication of subprimals on the resultant Escherichia coli O157:H7 contamination level</td>
<td>$43,000</td>
<td>2009</td>
</tr>
<tr>
<td>National Cattlemen’s Beef Association on behalf of the Cattlemen’s Beef Board</td>
<td>Evaluation of Escherichia coli O157:H7 translocation and decontamination for beef vacuum packaged subprimals destined for non-intact use</td>
<td>$79,000</td>
<td>2009</td>
</tr>
</tbody>
</table>
Food Science and Technology Graduate Program (PhD)

| National Cattlemen’s Beef Association on behalf of the Cattlemen’s Beef Board | Nutrient database improvement research phase 1B: Nutrient analysis of beef chuck cuts | $66,460 | 2009 |
| National Cattlemen’s Beef Association on behalf of the Cattlemen’s Beef Board | Nutrient database improvement research phase 2: Collection, sample preparation and proximate analysis of rib and plate cuts | $73,884 | 2009 |
| Intervet, a part of Schering-Plough | Retail yields of subprimals from Choice and Select (treat and control) native steers | $24,000 | 2009 |

Intellectual Property, Patents, Software, etc

C. Service (3-yr Summary)

**Department, College, University**
- Faculty Coordinator, Rosenthal Meat Science and Technology Center.
- HACCP Coordinator, Rosenthal Meat Science and Technology Center.

**National / International Organizations**
- Council for Agricultural Science and Technology
  - McDonald’s Corporation International Scientific Advisory Committee on BSE, Member, 2001 to present.
  - Outback Steakhouse Advisory Committee on Food Safety and Animal Well Being, Member, 2004 to present.
  - Elanco Animal Health Meat Science Advisory Committee, Member, 2003 to present.
- American Council on Science and Health [(www.acsh.org)](http://www.acsh.org), Board of Scientific Advisors.

**Editorial Work**

- Editorial Board, Meat Science
- Numerous journal reviews
### Name: Smith, Stephen B.

**Position Title:** Professor

### Education/Training

<table>
<thead>
<tr>
<th>Institution and Location</th>
<th>Degree</th>
<th>Year(s)</th>
<th>Field of Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>California State College, Bakersfield</td>
<td>B.S.</td>
<td>1975</td>
<td>Biology</td>
</tr>
<tr>
<td>University of California, Davis</td>
<td>Ph.D.</td>
<td>1980</td>
<td>Metabolic Physiology</td>
</tr>
<tr>
<td>US Meat Animal Research Center/University of Nebraska</td>
<td>Postdoc.</td>
<td>1979-81</td>
<td>Nutrition</td>
</tr>
</tbody>
</table>

### Employment and Professional Experience

- Research Chemist (GS-12), Meats Research Unit, U.S. Meat Animal Research Center, USDA/ARS, Clay Center, Nebraska, 1981-1983
- Associate Professor of Animal Science, TAMU, 1983-1988
- Professor of Animal Science, TAMU, 1988-present
- Visiting Scholar, University of Chicago, Department of Molecular Biology, 1990
- Visiting Scientist, CSIRO, Brisbane, Australia, 1996, 2007
- Chair, Intercollegiate Faculty of Nutrition, Texas A&M University, 2008-2010

### Honors and Awards


### Selected Publications (from a list of 161)


Research Support


NAME: Joseph Sturino  
POSITION TITLE: Assistant Professor

eRA COMMONS USER NAME: 

EDUCATION / TRAINING (Begin with baccalaureate or other initial professional education)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Wisconsin-Madison (Madison, WI)</td>
<td>Honors B.S</td>
<td>1996</td>
<td>Bacteriology</td>
</tr>
<tr>
<td>University of Wisconsin-Madison (UW-Madison) (Madison, WI)</td>
<td>M.S</td>
<td>2000</td>
<td>Bacteriology</td>
</tr>
<tr>
<td>North Carolina State University (NCSU) (Raleigh, NC)</td>
<td>PhD</td>
<td>2003</td>
<td>Genomics</td>
</tr>
</tbody>
</table>

Positions, Employment, Other Experience

‘06 Jan. – ‘06 Sep.  Research Scientist, Genomics and Strain Development Department  
Chr. Hansen A/S (Copenhagen, Denmark)

‘07 Jan. – Present  Assistant Professor, Molecular Microbiology & Gastrointestinal Health  
Department of Nutrition and Food Science (NFSC)  
Texas A&M University (College Station, TX)

‘07 Mar. – Present  Member, Intercollegiate Graduate Faculty of Biotechnology  
http://www.tamu.edu/ppib/  
Texas A&M University (College Station, TX)

‘07 Apr. – Present  Affiliate Member, Center for Obesity Research & Program Evaluation  
Texas A&M University (College Station, TX)

‘07 Sep. – Present  Member, Intercollegiate Graduate Faculty of Genetics  
http://gene.tamu.edu/  
Texas A&M University (College Station, TX)

‘08 Nov. – Present  Director, Phenotype Microarray Facility Core  
http://nfscfaculty.tamu.edu/sturino/visit.html  
Texas A&M University (College Station, TX)

‘09 May. – Present  [application pending] Texas A&M Alliance for Bioinformatics,  
Computational Biology, and Systems Biology (ABCS)  
http://abcs.tamu.edu/  
Texas A&M University (College Station, TX)

Key Research Areas (Bulleted list)

Professional Memberships

Scientific Advisory Boards:
Invited Extramural Grant Application Reviewer: ad hoc

2007  Canadian Institutes of Health Research (CIHR), Innovation and Industry Programs Branch, External Grant Application Reviewer

2008  Natural Sciences and Engineering Research Council of Canada (NSERC), Strategic Project Grants: Quality Foods and Novel Bioproducts, External Grant Application Reviewer

2009, 2010  Irish Research Council for Science, Engineering and Technology (IRCSET), Government of Ireland EMPOWER Postdoctoral Fellowships in Science, Engineering and Technology, Micro/Macrobiology Section, Remote Expert Assessor

2009  United States Department of Agriculture (USDA) Food Research Initiative (AFRI) and the National Science Foundation (NSF) Microbial Genome Sequencing Program (MGSP), External Grant Application Reviewer

2009  National Dairy Council, Nutrition Research Program, Discovery Section, External Grant Application Reviewer

Invited Extramural Grant Application Reviewer: On-site Panel Member

2009, 2010  IRCSET EMPOWER Fellowship & IRCSET-Marie Curie International INSPIRE Mobility in Science Engineering and Technology Postdoctoral Fellowship, Micro/Macrobiology Section (Dublin, Ireland)

Editorial Board Member: Scientific Journals

‘08 Jan. – ‘10 Dec.  Applied and Environmental Microbiology (AEM)

  ○ 2006 Institute for Scientific Information's (ISI) Eigenfactor Score 0.18435 (99%), Article Influence Score 1.5345 (90.20%)
  ○ ISI 2007 Journal Citation Reports Impact Factor (IF): 4.004
  ○ Ranked #18 of 94 journals (by IF), Microbiology Category; Ranked #23 of 138, Biotechnology & Applied Microbiology Category

‘09 Feb.  Journal of Biotech Research (ISSN 1944-3285)

  ○ Invitation Declined

Invited Ad Hoc Reviewer: Scientific Journals

2004 – Present  Applied and Environmental Microbiology [2007 ISI IF: 4.004]
2008 – Present  Microbiology (UK) [2007 ISI IF: 3.110]
Food Science and Technology Graduate Program (PhD)

2009 – Present  Journal of Biotech Research (ISSN 1944-3285)
2009 – Present  Journal of Molecular Microbiology and Biotechnology [2007 ISI IF: 2.588]

- 2004-2009 Reviewed over 130 Manuscripts [updated 1 June 2009]

Scientific Memberships and Affiliations:

- Member, Council on Undergraduate Research
- Member, American Society for Nutrition (ASN)
- Member, American Dairy Science Association (ADSA)
- Member, American Society for Microbiology (ASM)
- Member, Institute of Food Technologists (IFT)
- Member, Sigma Xi Scientific Research Honor Society (ΣΞ)
- Member, Phi Tau Sigma Food Science Honor Society (ΦΤΣ)
- Member, Alpha Chi Sigma Professional Chemistry Fraternity (ΑΧΣ)

Honors / Awards Received (Lifetime, list date)

1993  A. J. Riker Academic Scholarship (UW-Madison)
1994  Inducted into the Alpha Chi Sigma Professional Chemistry Fraternity
1995  Senior Honors Thesis Fellowship (UW-Madison)
2000  National Institute of Health Biotechnology Training Program Fellowship (NCSU)
2000  National Science Foundation Research Ethics Fellowship (NCSU)
2002  Speaker Travel Grant, FEMS Seventh Symposium on Lactic Acid Bacteria
2002  Speaker Travel Grant, ASM Sixth Conference on Streptococcal Genetics
2002  Speaker Travel Grant, Plasmid Biology
2002  Inducted into the Sigma Xi Scientific Research Honor Society
2002  Inducted into the Phi Tau Sigma Food Science Honor Society
2003  NCSU Microbiology Dept. Sole Nominee for Keller Award (Best Dissertation)
2002 – 2004  Chr. Hansen Innovation Excellence Award
2007  NFSC Nomination, TAMU Life Science Building Occupancy
2008 – 2010  Editorial Board, Applied and Environmental Microbiology

Teaching, Research and Service (3-yr Summary)

JJ. Courses Taught, Semester, Cr Hrs, Number of Students Enrolled

Undergraduate Teaching Responsibilities: (2007 – Present)
Food Science and Technology Graduate Program (PhD)

`07 Autumn  NUTR 481 Nutrition Seminar
`08 Spring  NUTR/FSTC 489 Probiotics and Alimentary Microbiology
`08 Autumn  NUTR 481W Nutrition Seminar (Writing Intensive)
`08 Autumn  NUTR/FSTC 489 Probiotics and Alimentary Microbiology
`09 Spring  NUTR 481W Nutrition Seminar (Writing Intensive)
`09 Autumn  NUTR/FSTC 440 Therapeutic Microbiology
`09 Autumn  NUTR 481C Nutrition Seminar (Communications)

**Invited Undergraduate Guest Lectures:** Texas A&M University (2007 – Present)

`07 Apr. 05  FSTC 401 Food Product Development: Biological Food Ingredients & Supplements
`07 Oct. 03-10 FSTC/DSC 326 Food Bacteriology: Dairy Microbiology & Probiotics
`08 Apr. 10  FSTC 401 Food Product Development: Biological Food Ingredients & Supplements
`08 Apr. 18-21 FSTC/DSC 326 Food Bacteriology: Dairy Microbiology & Probiotics
`08 Dec. 21  HORT 489 (TAMU), NUTR 468X (Iowa State University), FST 694) (Ohio State University), The Science of Foods for Health: a Multi-Institutional, Multi-State Effort for Undergraduate Education. A total of 20 students (10 Texas A&M, 5 each from Iowa State University and Ohio State University) participated in a series of lectures, hands-on training, and visits to the participating institutions. These students visited the Texas A&M Vegetable & Fruit Improvement Center (VFIC) for hands-on training on December 20 and 21.

**Invited Undergraduate Seminars:** Texas A&M University (2007 – Present)

`07 Sep. 24  FSTC 481 Senior Seminar: Gastrointestinal Microbiology

**Graduate Teaching Responsibilities:** (2007 – Present)

`07 Summer  BIOT 601 Biotechnology Principles and Techniques I (Laboratory Module 2): Plasmid and Genomic DNA Isolation; Polymerase Chain Reaction
`08 Spring  NUTR/FSTC 689 Probiotics and Alimentary Microbiology
`08 Summer  BIOT 601 Biotechnology Principles and Techniques I (Laboratory Module 2): Plasmid and Genomic DNA Isolation; Polymerase Chain Reaction.
`08 Autumn  BIOT 603 Applied Principles of Biotechnology (Claudia Veronica Aguillon)
`08 Autumn  NUTR/FSTC 689 Probiotics and Alimentary Microbiology
`09 Spring  BIOT 603 Applied Principles of Biotechnology (Anupama Pathi)
`09 Autumn  NUTR/FSTC 640 Therapeutic Microbiology
`09 Summer  BIOT 601 Biotechnology Principles and Techniques I (Laboratory Module 2): Plasmid and Genomic DNA Isolation; Polymerase Chain Reaction

**Invited Graduate Seminars:** Texas A&M University (2007 – Present)

`07 Mar. 26  BIOT 681 Biotechnology Seminar: Industrial Starter Culture Development: Genomics and Engineering

200
Food Science and Technology Graduate Program (PhD)

´07 Sep. 11 NUTR 681 Graduate Seminar: Role of Probiotics in Gastrointestinal Health
´08 Apr. 02 PLPA 681 Plant Pathology Seminar
´08 Oct. 27 FSTC 681 Food Science and Technology Seminar
´09 Oct. 05 FSTC 681 Food Science and Technology Seminar

Graduate Degrees – Student Name, Degree Earned, Placement (Name of Employer or Institution)

´07 Autumn – Present Laura Thomas (Ph.D. Nutrition & Dietetics Double Degree)
´09 Autumn – Present Sujitta Raungrusmee (Ph.D. Food Science)
´09 Autumn – Present Lynn R. Jones (Ph.D. Food Science)
´07 Autumn – Present Ying-Ying (Kelly) Chang (M.S. Food Science & Technology)

´08 Summer – Present Carly Ferguson (M.S. Nutrition & Dietetics Double Degree)
´08 Spring – ’08 Summer Sridhar Radhakrishnan
´08 Autumn – ’09 Spring Claudia Veronica Aguillon
´08 Autumn – ’09 Autumn Shazia Farheen Shaik
´09 Spring – Present Anupama Pathi
´09 Spring – Present Saranya Balasundaram Sivanandam
´09 Spring – Present Tejeswini Muthukrishna Pisupati
´09 Spring – ’09 Autumn Shruti Konda
´09 Spring – Present Varun Bagai
´09 Autumn – Present Philips Israel

KK. Three-year peer-reviewed publications (in chronological order), grants and intellectual property

Books, Book Chapters, White Papers, etc

Peer-reviewed Journal Articles


**Reviews:**


- Article (and artwork there from) was showcased on Nature Reviews Microbiology Homepage as one of three featured articles for the May 2006 Vol 4 No 5 issue.

Presentations / Abstracts


Honggui Li, Xin Guo, Laura N. Thomas, J.M. Sturino, Chaodong Wu. Involvement of PFKFB3/iPFK2 in the suppressive effect of rosiglitazone on diet-induced intestine inflammatory response. [EB, submitted]

Grants (Funding Agency, Title, Funding Amount, Time Frame)

**Competitive Extramural Funding:**

**ACTIVE**

TAES 405591  
**Sponsor:** Industry Sponsor #1 (Identity Contractually Redacted until 2012)  
**Title:** Novel applications for calcium aluminosilicate  
**Role:** Principal Investigator (PI)  
**Award:** $73,000 (11/01/2008 to 01/15/2010)

CA90301  
**Sponsor:** NIH/NCI  
**Title:** Nutrition, Biostatistics and Bioinformatics  
**Role:** Co-investigator (PI: Dr. Ray Carroll)  
**Award:** $2,700,000 (07/01/2006 to 06/30/2011)  
http://www.stat.tamu.edu/train/
RF 0800092
Sponsor: **Industry Sponsor #2** (Identity Contractually Redacted until 2011)
Title: Dietary Fibers as Potential Anti-Inflammatory Agents
Role: Co-Investigator (PI: Dr. J. Lupton) Award: $148,000 (10/12/2007 to 09/30/2009)

TAES 405591-Amendment
Sponsor: **Industry Sponsor #1** (Identity Contractually Redacted until 2012)
Title: Novel applications for calcium aluminosilicate
Role: Principal Investigator (PI) Award: $80,772 (11/01/2009 to 01/15/2010)

**Competitive Intramural Funding:**

PREVIOUS

Sponsor: **International Research Travel Assistance Grant (IRTAG)**
Title: Exopolysaccharide Production in *Streptococcus thermophilus*
Role: Principal Investigator (PI) Award: $2,750 (´07 May – ´08 May)

Sponsor: **Texas AgriLife Research**
Title: BioLog OmniLog PM (Permanent University Fund (PUF) Disbursement)
Role: PI Award: $45,000 (November 2008)

Sponsor: **Texas AgriLife Research**
Title: Dionex ICS 3000 HPAC FY09 (Bioenergy Exceptional Item Disbursement)
Role: Principal Investigator (PI) Award: $25,000 (June 2009)

Sponsor: **National Science Foundation**
Title: Bioengineering and Bioinformatics Summer Institutes (BBSI) Program
Role: Research Group Leader Award: $3,000 of $600,000 (Summer 2009)

http://ebat.tamu.edu/programs/bbsi/

**Non-competitive Funding:**

ACTIVE

Sponsor: **Endowed William Allen Chair in Nutrition** (Dr. Joanne Lupton, NFSC)
Title: Research Assistantship Grants (one of six equal donations awarded)
Role: Principal Investigator (PI) Award: $25,000 (´07 May – ´11 May)

TEX09231
Sponsor: **United States Department of Agriculture (Hatch Act)**
Title: Genetic Distribution and Drift During Rapidly Switched Suppressive Therapy
Role: Principal Investigator (PI) Award: $6,950
Patent Applications: Pending Approval

LL. Service (3-yr Summary)

Department, College, University

Service: Texas A&M University or Texas AgriLife Research

2007
USDA Hatch Act Current Research Information System (CRIS) Internal Grant Application Reviewer (ad hoc)

‘09 Spring
Association of Former Students Graduate Merit Fellowship Application Review Committee (ad hoc)

‘09 Spring
Office of the Vice President for Research Texas A&M-CONACyT: Collaborative Research Grant Program Application Review Committee (ad hoc)

‘08 Autumn – ‘09 Spring
Participating member of three of the final eight approved Research Roadmap Whitepapers, which will be developed into "landmark" areas of excellence at Texas A&M University:
  o The Center for Phage Technology
  o Whole Systems Genomics for Human, Animal and Environmental Well-being
  o Applied Mathematical, Statistical and Computational Sciences: the key to unlocking the landmark challenges

Texas A&M University Foundation: Fundraising

‘07 Oct. 23
Hilmar Cheese (with Jody Ford)

Service: College of Agriculture and Life Sciences

‘07 Jun. 22
Ad hoc participant, COALS Curriculum Assessment Workshop

‘08 Autumn – Present
Genetics Faculty Representative, College Recruiting Council

Service: Intercollegiate Graduate Faculty Committees
Food Science and Technology Graduate Program (PhD)

<table>
<thead>
<tr>
<th>Year</th>
<th>Role and Committee</th>
</tr>
</thead>
<tbody>
<tr>
<td>’07 Autumn</td>
<td>Member, IFFST Academic Scholarship &amp; Travel Award Committee</td>
</tr>
<tr>
<td>’07 Summer – ’08 Spring</td>
<td>Member, Genetics Graduate Student Recruitment Committee</td>
</tr>
<tr>
<td>’08 Summer – Present</td>
<td>Chairperson, Genetics Graduate Student Recruitment Committee</td>
</tr>
</tbody>
</table>

Graduate Recruiting Weekend
- 14 Student Recruits
- 9 Applicants were offered positions to fill 12 available slots
- 3 Applicants were awarded $9,500 Regents’ Fellowships (Danielle Tufts, Yang Eungi, Hilary Witzenman)

Solicited Recruitment Travel Grants
- Prospective Graduate Student Travel Grant (OGS)
- Recruiting Grant for Prospective Graduate Students (COALS)
- PhD Applicants: Yang Eungi ($400 OGS; $500 COALS) and Danielle Tufts ($300 OGS; $500 COALS)

Outreach to Underrepresented Groups
- Compiled and submitted OGS Graduate Diversity Fellowship nomination package [Ms. Kelly Churion, PhD applicant of Hispanic descent]. Total Package: $84,000 (OGS: 3 years × $21,000 stipend; GENE: 3 years × $7,000).
  - Application was unfunded. Applicant was ranked 125/157 and the nomination cut-off was 118. OGS expects to fund 72 fellowships. First GENE Diversity Fellowship Application submitted since 2004/2005.
- 10 Dec 2008. Student Roundtable, Prairie View A&M University
- 19 June 2009. Served as host genomics laboratory for 6 students participating in a 10-week Minority Biomedical Research Support (MBRS) Research Initiative for Student Enhancement (RISE) program (PI: Dr. E. Gloria C. Regisford, Prairie View A&M University).
  - The goal of the program is “to increase the interest, skills, and competitiveness of students and faculty in pursuit of biomedical research careers,” particularly at universities with a high minority enrollment.
  - Arranged visits with Dr. Chapkin (NFSC) and Dr Alaniz (Microbial and Molecular Pathogenesis)
  - GENE Student Participant: Catherine Cifuentes-Rojas.
  - Applied to become a mentor for the Texas A&M System Louis Stokes Alliance for Minority Participation (TAMUS
LSAMP)

‘09 Spring Oral Presentation Judge, IFN Nutritional Science Research Competition

Service: Nutrition and Food Science (NFSC) Department Committees (Standing)

‘08 Autumn Member, Undergraduate Program Committee
‘08 Spring – ‘08 Autumn Member, Undergraduate Scholarship Sub-committee
‘08 Autumn – Present Member, Awards Committee
  o Worked with Committee Chair Mary "Mickey" Kinney Bielamowicz and Gail Hyden to develop a pre-nomination package for Dr. Peter Murano for the 2009/10 Association of Former Students' Distinguished Achievement Awards at the University-Level (Dec. 2009).

‘08 Autumn – Present Member, Graduate Program Committee

Service: NFSC Committees (ad hoc)

‘07 Spring Member, Kellogg Company Scholarship Award Committee
‘07 Spring Chairperson, General Nutrition Track Learning Outcomes Committee
‘07 Summer – ‘08 Autumn Member, Faculty Search (AGRO/NFSC Grain Quality & Technology)
‘07 Autumn – Present Member, Enology Program Specialist Advisory Committee
‘08 Autumn Nominated, NFSC Department Head Search Advisory Committee
‘08 Aug. – Present Member, Faculty Search (NFSC/BAEN Food Processing Engineer)

National / International Organizations

Editorial Work
NAME
Stephen T. Talcott

POSITION
Associate Professor of Food Chemistry

eRA COMMONS USER NAME
stalcott

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)

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<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
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<th>FIELD OF STUDY</th>
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<tr>
<td>Texas A&amp;M University, College Station</td>
<td>BS</td>
<td>1994</td>
<td>Food Science and Technology</td>
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<tr>
<td>Texas A&amp;M University, College Station</td>
<td>MS</td>
<td>1997</td>
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<tr>
<td>University of Arkansas, Fayetteville</td>
<td>PhD</td>
<td>2000</td>
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Texas A&M University, Department of Nutrition and Food Science
Centeq A #220F, TAMU 2254, 1500 Research Parkway A
College Station, TX 77843-2254
Phone: 979-862-4056, Fax: 979-458-3405
Email: stalcott@tamu.edu Website: http://nfscfaculty.tamu.edu/talcott/

Positions & Employment
Associate Professor, 45% Research, Texas A&M University, 2008-present
Assistant Professor, 45% Research, Texas A&M University, 2006-2008
Associate Professor, 50% Research, University of Florida, 2006
Assistant Professor, 50% Research, University of Florida, 2000-2006
Chemistry Supervisor, Silliker Laboratories., 1994-1995

Key Research Areas
• Phytochemistry of fruits, vegetables, and botanicals
• Food process improvements
• Phytochemical isolation and analysis
• Food quality

Courses Taught
• Food Chemistry (FSTC 312; 40-45 students/yr)
• Food Chemistry Laboratory, Writing Intensive (FSTC 313; 25-30 students/yr)
• Graduate Food Chemistry (FSTC 605; 15-20 students/yr)
• Research/Special Topics (FSTC 685; 2-5 students/yr)

Refereed Publications (3 yr summary)


Abstracts (3 yr summary)


• **Pacheco-Palencia and Talcott, S.T. 2008. *In vitro* absorption and biological activity of phytochemical rich extracts from açai oil and açai juice (*Euterpe oleracea* Mart.).** Annual meeting of the Institute of Food Technologists, New Orleans, LA. ([www.ift.org](http://www.ift.org)).

• **Pacheco-Palencia, Duncan, C.D., Talcott, S.T. 2008. HPLC-ESI-MS" characterization of phytochemicals in two commercial açai species, *Euterpe oleracea* and *Euterpe precatoria*.** Annual meeting of the Institute of Food Technologists, New Orleans, LA. ([www.ift.org](http://www.ift.org)).

• **Pacheco-Palencia, Talcott, S.T., Mertens-Talcott, S., 2008. UVA and UVB protective effects of pomegranate (*Punica granatum* L.) polyphenolics in human skin fibroblasts.** Annual meeting of the Institute of Food Technologists, New Orleans, LA. ([www.ift.org](http://www.ift.org)).

• **Kim, Y.M and Talcott, S. T. 2008. Antioxidant capacity of phenolic fractions separated from green tea, yaupon holly and mamaki and their identification and quantification by HPLC-PDA-ESI/MS^n analysis.** Annual meeting of the Institute of Food Technologists, New Orleans, LA. ([www.ift.org](http://www.ift.org)).

• **Pacheco-Palencia and Talcott, S.T. 2007. Phytochemical composition, antioxidant capacity, and thermal stability of acai species (Euterpe oleracea Mart. and Euterpe precatoria Mart.).** Annual meeting of the Institute of Food Technologists, Chicago, Ill ([www.ift.org](http://www.ift.org)).

• **Pacheco-Palencia and Talcott, S.T. 2007. Juice matrix composition and ascorbic acid fortification effects on the phytochemical, antioxidant and pigment stability of acai (Euterpe oleracea Mart.).** Annual meeting of the Institute of Food Technologists, Chicago, Ill ([www.ift.org](http://www.ift.org)).

• **Cardona, J. and Talcott, S.T. 2007. Influence of value-added processing of Muscadine grape pomace on the polyphenolic quality and recovery.** Annual meeting of the Institute of Food Technologists, Chicago, Ill ([www.ift.org](http://www.ift.org)).

• **Kim, Y.M., and Talcott, S. T. 2007. The impact of processing and storage conditions on the phytochemical stability of three tea varieties.** Annual meeting of the Institute of Food Technologists, Chicago, Ill ([www.ift.org](http://www.ift.org)).

• **Kim, Y.M. and Talcott, S.T. 2007. The impact of packaging materials on the antioxidant phytochemical content of three tea varieties.** Annual meeting of the Institute of Food Technologists, Chicago, Ill ([www.ift.org](http://www.ift.org)).


• **Duncan, D. E., Talcott, S. T. Phytochemical Changes in Acai Fruit Oil Are Induced by Photo-oxidation. Abstract/Poster presented at the 2009 IFT Annual Meeting, Anaheim, CA.**


• **Sipowicz M, Talcott, ST, Mertens-Talcott SU. Sensory evaluation of the 2007 Texas A&M commercial wine chemistry trials. Texas Viticulture & Enology Research Symposium, Granbury, Texas, June 2009.**

• **Mertens-Talcott SU., Del Follo, A, Talcott, ST, Sipowicz M. Chemical Properties and Anti-Cancer Effects of Texas Wines, Texas Viticulture & Enology Research Symposium, Granbury, Texas, June 2009.**

• **Michele C Bertoldi, Giuliana D Noratto, Stephen T. Talcott, Susanne U Mertens-Talcott. Phytochemicals from mango (Mangifera indica L.) suppress the growth of cancer cells. Abstract/Poster presented at the 2009 IFT Annual Meeting, Anaheim, CA.**

## BIOGRAPHICAL SKETCH

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<tr>
<th>NAME</th>
<th>UNIVERSITY</th>
<th>POSITION TITLE</th>
<th>LOCATION</th>
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<th>YEAR(s)</th>
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<tr>
<td>Smertens</td>
<td>University of Bonn</td>
<td>Asst. Professor</td>
<td>Germany</td>
<td>University of Bonn, Germany</td>
<td>BS/MS</td>
<td>1993-1998</td>
<td>Nutrition</td>
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<td></td>
<td>University of Florida</td>
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<td>FL</td>
<td>University of Florida, Gainesville, FL</td>
<td>Ph.D</td>
<td>2000-2004</td>
<td>Anticancer effects of Flavonoids</td>
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<tr>
<td></td>
<td>University of Florida</td>
<td></td>
<td>FL</td>
<td>University of Florida, Gainesville, FL</td>
<td>Postdoctoral training</td>
<td>2004-2006</td>
<td>Food-Drug Interactions, Pharmacodynamics of Flavonoids in Disease Prevention</td>
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### Positions & Employment
- **Director for Research**, Institute for Obesity Research and Program Evaluation, Texas A&M University, College Station, TX, since 2009
- **Assistant Professor** Dept. of Nutrition and Food Science, Texas A&M University, College Station, TX, since 2008
- **Postdoctoral Research Associate in Pharmaceutics**, University of Florida, Gainesville, FL, Pharmaceutics Department, Center for Food Drug Interactions and Education, 2004-2006
- **Graduate Research Assistant**, University of Florida, Gainesville, FL, Food Science and Human Nutrition Department, 2000-2004
- **Research Assistant in Nutritional Biochemistry** University of Bonn, Bonn, Germany, Department Biochemistry, 1999-2000
- **Research Assistant in Clinical Biochemistry** University of Bonn, Bonn, Germany, Department of Clinical Biochemistry, 1999
- **Research Assistant in Nutrition** University of Bonn, Bonn, Germany, Department of Nutrition, 1998

### HONORS AND AWARDS
- **ASN Mary Swartz Rose Young Investigator Award, 2009.** American Society of Nutrition
- **First Place, Research Competition.** Nutrition Division, Institute of Food Technologists (IFT) Annual meeting 2004, Las Vegas, NE.
- **Presidential Recognition** for outstanding students, University of Florida, Gainesville, FL, 2004
- **Graduate Student Council Travel Scholarship.** University of Florida, Institute of Food Technologists Annual meeting, Chicago, IL. 2002, 2003, 2004
- **Institute for Agricultural and Life Sciences Travel Scholarship.** University of Florida, Gainesville, FL. 2003, 2004
- **First Place, student poster competition,** Fruit and Vegetable Division, Division, IFT Annual meeting 2003, Chicago, IL.
- **Gamma Sigma Delta Honor Society of Agriculture,** University of Florida, Gainesville, FL. Member since 2002
- **George K. Davis Fellowship,** Institute for Agricultural and Life Sciences, University of Florida, Gainesville, FL. 2000-2004
- **Scholarship Carl-Duisberg-Association, Germany.** Study abroad program at the College of Technology, Dublin, Ireland. 1993
PEER-REVIEWED PUBLICATIONS


INVITED BOOK CHAPTERS AND OTHER PUBLICATIONS


SELECTED ABSTRACTS

- Sipowicz M, Talcott, ST, Mertens-Talcott SU. Sensory evaluation of the 2007 Texas A&M commercial wine chemistry trials. Texas Viticulture & Enology Research Symposium, Granbury, Texas, June 2009
- Mertens-Talcott SU., Del Follo, A, Talcott, ST, Sipowicz M. Chemical Properties and Anti-Cancer Effects of Texas Wines, Texas Viticulture & Enology Research Symposium, Granbury, Texas, June 2009

• Townsley, E, Noratto G, Mertens-Talcott SU. Plum polyphenolics decrease oxidative stress and inflammation in vascular endothelial cells. The FASEB Journal 2009. 717.12, Experimental Biology Meeting, New Orleans, LA


• Del Follo A, Mertens-Talcott SU. Red wine polyphenolics have anti-cancer effects in colon-cancer and target oncogenic microRNAs as potential underlying mechanisms The FASEB Journal 2009. 897.17, Experimental Biology Meeting, New Orleans, LA

• Bertoldi M, Noratto G, Talcott ST, Mertens-Talcott SU. Phenolics from mango (Mangifera indica L.) suppress growth in different cancer cells, targeting pro-apoptotic and cell cycle control proteins. The FASEB Journal 2009. 716.11, Experimental Biology Meeting, New Orleans, LA

• Noratto G, Mertens-Talcott SU. Caffeine free polyphenolic extracts from Yaupon holly (Ilex vomitoria) have chemopreventive potential and reduce the expression of inflammatory genes in non-cancer human myofibroblast (CCD-18) cells. The FASEB Journal 2009. 345.4, Experimental Biology Meeting, New Orleans, LA

• Noratto G, Morales, G, Tian, Y, Mertens-Talcott SU. Effects of Polyphenolics from Grape (Vitis rotundifolia) and acai (Euterpe oleracea Mart.) on the expression of microRNAs relevant to inflammation in vascular diseases. The FASEB Journal 2009. 5150, Experimental Biology Meeting, New Orleans, LA


• Mertens-Talcott, SU, Chintharlapalli S, Li X, Safe SS. The oncogenic microRNA-27a is involved in the regulation of specificity protein transcription factors and cell cycle in ER-negative breast cancer cells. TAMU Cancer Workshop 2, 2008

• Mertens-Talcott, SU, Chintharlapalli S, Li X, Safe SS. The Effects of Betulinic Acid on microRNA-27a regulated target genes in MDA-MB-231 breasts cancer cells. The FASEB Journal 2008, Experimental Biology meeting 2008, San Diego, CA,

• Pacheco-Palencia LA, Mertens-Talcott SU, Talcott ST. Chemical Composition, Antioxidant Properties, and Thermal Stability of a Phytochemical Enriched Oil from Açai (Euterpe oleracea Mat.). Book of Abstracts, Institute of Food Technologists Annual Meeting 2008 www.ift.org,

• Pacheco-Palencia LA, Talcott ST, Mertens-Talcott SU. Absorption and Biological Activity of Phytochemical Rich Extracts from Açai Oil and Açai Juice (Euterpe oleracea Mat.) In Vitro. Book of Abstracts, Institute of Food Technologists Annual Meeting 2008 www.ift.org, submitted


• Mertens-Talcott SU, Manthey JA. Drug Interactions and Absorption of Citrus Polyphenolics, Book of Abstracts, Institute of Food Technologists Annual Meeting 2007 www.ift.org Session 64.03


**INVITED ORAL PRESENTATIONS**

• Sipowicz M, Talcott, ST, **Mertens-Talcott SU.** Sensory evaluation of the 2007 Texas A&M commercial wine chemistry trials. Texas Viticulture & Enology Research Symposium, Granbury, Texas, June 2009

• **Mertens-Talcott SU,** Del Follo, A, Talcott, ST, Sipowicz M. Chemical Properties and Anti-Cancer Effects of Texas Wines, Texas Viticulture & Enology Research Symposium, Granbury, Texas, June 2009

• **Mertens-Talcott SU.** Anti-cancer effects of Texas red wine, Messina Hof, Bryan TX, June 2009

• **Mertens-Talcott SU.** How can Superfruits be used in the prevention of cardiovascular disease. University of Texas Southwestern, May 2009

• **Mertens-Talcott SU.** Superfruits in the Prevention of Chronic Diseases?, Seminar, Monterey Tech University, Monterrey, Mexico, Nov, 2008

• **Mertens-Talcott SU.** Health Benefits of Phytochemicals. Dietetics Association, College Station, TX, Sept. 2008

• **Mertens-Talcott SU.** Health Benefits of Antioxidant Phytochemicals and Implications for Space Flight. USRA Division of Space Life Sciences Brown Bag Seminar Series, Houston, TX, August 2008

• **Mertens-Talcott SU,** Sipowicz MP, Cordera J, Duncan CE, Talcott ST. Health Benefits of Wines. 2008 Annual TWGGA meeting, Houston, TX

• **Mertens-Talcott SU.** Grapefruit-Drug Interactions. Role of Intestinal Transporters, International symposium on Human Health Effects of Fruits and Vegetables, 2007, Houston, TX


• **Mertens-Talcott SU.** Research on Health Benefits of Muscadine Grapes, RAIN Conference III, Clemson University's Pee Dee Research and Education Center, Florence, SC, Jan 2007

• **Mertens-Talcott SU.** Absorption and Antioxidant Effects of Pomegranate Extract. Supplyside West, Las Vegas, 2006

**ACTIVITIES IN PROFESSIONAL ASSOCIATIONS**

• **Secretary/Treasurer** Research Interest Section Bioactive Compounds, American Society of Nutrition (ASN), for 2008-2010

• **Chair** of technical session: Dietary Bioactive Compounds: ASNS Annual Meeting 2009, New Orleans, LA, The FASEB Journal

• **Chair of symposium:** Fruit and Vegetable Division. Book of Abstracts, Ann. Mtg. 2008, Inst. Of Food Technologists

• **Chair,** Student Career Workshop, American College of Clinical Pharmacology (ACCP), Annual Meeting 2008, Philadelphia, PA

• **Moderator and Chair,** Student Career Workshop, American College of Clinical Pharmacology (ACCP), Annual Meeting 2007, San Francisco, CA

• **Chair** of the SOC-Committee, American College of Clinical Pharmacology (ACCP), New Hartford, NY, 2006-2008


• **Co-Chair** of technical session: Dietary Bioactive Compounds: Metabolism, ASNS Annual Meeting 2006, San Francisco, CA, The FASEB Journal, in press,

• Member of the **Student Outreach Committee of the American College of Clinical Pharmacology,** New Hartford, NY, since 2005

• Multi-Lab Validation of the oxygen radical absorbance capacity (ORAC) assay, NIH-OD, since 2005
BIOGRAPHICAL SKETCH

NAME: Thomas Matthew Taylor

POSITION TITLE: Assistant Professor, Food Microbiology, Department of Animal Science, Texas A&M University

eRA COMMONS USER NAME: matttaylor

EDUCATION / TRAINING (Begin with baccalaureate or other initial professional education)

<table>
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<th>INSTITUTION AND LOCATION</th>
<th>DEGREE</th>
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<tr>
<td>North Carolina State University, Raleigh, NC</td>
<td>B.S.</td>
<td>2000</td>
<td>Food Science</td>
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<tr>
<td>North Carolina State University, Raleigh, NC</td>
<td>B.A.</td>
<td>2000</td>
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<tr>
<td>North Carolina State University, Raleigh, NC</td>
<td>M.S.</td>
<td>2003</td>
<td>Food Science</td>
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<tr>
<td>University of Tennessee-Knoxville, Knoxville, TN</td>
<td>Ph.D.</td>
<td>2006</td>
<td>Food Science &amp; Technology</td>
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Positions, Employment, Other Experience


Key Research Areas (Bulleted list)

*Analysis of food antimicrobial function and mechanism(s) of microbial inhibition.
*Nano-encapsulation and delivery of food antimicrobials to processed food products.
*Food microbiology.
*Food safety.

Professional Memberships

*Institute of Food Technologists
*International Association for Food Protection
*American Society for Microbiology
*Phi Tau Sigma Professional Society of Food Science & Technology
*Gamma Sigma Delta Honorary Society of Agriculture
*Alpha Zeta

Honors / Awards Received (Lifetime, list date)

*Chancellor’s Citation for Professional Promise, University of Tennessee-Knoxville, Dec. 2006.
*1st Place Recipient, Z. John Ordal Graduate Research Competition, Institute of Food Technologists, July 2003.
Teaching, Research and Service (3-yr Summary)

A. Courses Taught, Semester, Cr Hrs, Number of Students Enrolled

- DASC/FSTC 326: Food Bacteriology (Undergraduate), Fall+Spring, 3.0 Credits, Mean Enrollment: 210/Semester.
- DASC/FSTC 327: Food Bacteriology Laboratory (Undergraduate), Fall+Spring, 1.0 Credit, Mean Enrollment: 75/Semester.

Graduate Degrees – Student Name, Degree Earned, Placement (Name of Employer or Institution)

- Shannon E. Schmidt, M.S., Food Technologist, Pecan Candy Deluxe Co., Dallas, TX.
- Alex L. Brandt, M.S., Valdez Corp., Carrollton, TX.

B. Three-year peer-reviewed publications (in chronological order), grants and intellectual property

Books, Book Chapters, White Papers, etc


Peer-reviewed Journal Articles


Presentations / Abstracts


Grants (Funding Agency, Title, Funding Amount, Time Frame)


Intellectual Property, Patents, Software, etc

None

C. Service (3-yr Summary)

Department, College, University

Department
- Member, Department of Animal Science ad hoc Committee for Departmental Recruiting

College
- Member, Interdisciplinary Faculty of Food Science Bylaws Committee
- Faculty Coach, IFTSA Student College Bowl Team
- Expert Source, Texas AgriLife Communications Extension Publication: Six Food Safety Tips to Help You Stay Healthy This Summer
- Faculty Coach, IFTSA Student College Bowl Team

University
- Historian, Texas A&M University Gamma Sigma Delta Chapter
- Secretary, Texas A&M University Gamma Sigma Delta Chapter
- Reviewer, Texas A&M University/CONACyT Collaborative Research Grant Program

National / International Organizations

- Institute of Food Technologists Food Microbiology Division Awards Committee Chair

Editorial Work

- Editorial Board Member, Journal of Food Protection (FY07-09)
- Editorial Board Member, Food Protection Trends (FY08-09)
• Ad Hoc Review, Journal of Food Science (FY08-09)
• Ad Hoc Review, Food Microbiology (FY09)
AD-HOC REVIEWER FOR SCIENTIFIC JOURNALS

PROFESSIONAL ASSOCIATIONS
• Institute for Obesity Research and Program Evaluation, Director of Scientific Research, Texas A&M University, College Station, TX, since 2009
• Intercollegiate Faculty of Food Science, (Member since 2008)
• Intercollegiate Faculty of Toxicology, Texas A&M University, College Station, TX, (Associate Member since 2007)
• Intercollegiate Faculty of Nutrition, Texas A&M University, College Station, TX, (Associate Member since 2007)
• American College of Clinical Pharmacology (ACCP), New Hartford, NY, since 2005
• Plant Phenolics and Human Health Research Interest Group (PhenRIG), American Society for Nutrition (ASN), Bethesda, MD. Member since 2003
• Institute of Food Technologists (IFT), Chicago, IL. Member since 2001
• American Society for Nutrition (ASN), Bethesda, MD. Member since 2001
• German Federation of Certified Nutritionists (VDOe), Cologne, Germany. Member since 1998

TEACHING ACTIVITIES
Instructor:
• NUTR 489/689 Pharmacometrics of Bioactive Food Compounds. Nutrition and Food Science Department, Texas A&M University, Spring 2009
• FSTC314 Food Analysis, Nutrition and Food Science Department, Texas A&M University, Fall 2008, 2009
• NUTR 489 Special Topics in Phytochemical-Based Health Benefits of Fruits and Vegetables. Nutrition and Food Science Department, Texas A&M University, 2007 and Spring 2008
• NUTR 485 Directed Studies Nutrition and Food Science Department, Texas A&M, Fall 2007, 2008, Spring
Co-Instructor:
• PHA5352 Herbal Medicines, Pharmaceutics Department, University of Florida

Guest-Lectures:
• FSTC-312 Food Chemistry, Nutrition and Food Science Department, Texas A&M University
• FSTC-201 Food Science, Nutrition and Food Science Department, Texas A&M University
• HORT 640 Phytochemicals in Fruits and Vegetables to Improve Human Health, Center for Fruit and Vegetable Improvement, Department of Horticultural Sciences, Texas A&M University
• FOS 3042 Introductory Food Science, Food Science and Human Nutrition Department, University of Florida
• HUN 5246 Advanced Nutrition, Food Science and Human Nutrition Department, University of Florida
• HUN 6245 Advanced Nutrition, Food Science and Human Nutrition Department, University of Florida
• STA 6092 Applied Statistical Practice, Statistics Department, University of Florida

PATENTS-INVENTION DISCLOSURES
• Invention Disclosure: TAMUS 2881, Improved Assay for Determination of Reactive Oxygen Species, Susanne Talcott (100%) Inventor
BIOGRAPHICAL SKETCH

NAME: Nancy Delane Turner  
POSITION TITLE: Associate Professor

eRA COMMONS USER NAME:

EDUCATION / TRAINING (Begin with baccalaureate or other initial professional education)

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<td>M.S</td>
<td>1984</td>
<td>Animal Nutrition</td>
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<tr>
<td>Texas A&amp;M University</td>
<td>Ph.D</td>
<td>1995</td>
<td>Nutrition</td>
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Positions, Employment, Other Experience

1984 – 95  Research Associate, Animal Science Department, Texas A&M University  
1996 – 98  Assistant Research Scientist, Animal Science Department, Texas A&M University  
1997 – 05  Associate Member, Intercollegiate Faculty of Nutrition  
1998 – 03  Research Assistant Professor, Animal Science Department, Texas A&M University  
1999 – 07  Associate Member, Center for Environmental and Rural Health  
2001 -     Member, Faculty of Toxicology  
2001 – 05  Member of the Center for Nutrition, Health and Food Genomics of the Texas A&M Institute of Food Science and Engineering  
2003 – 05  Associate Professor, Animal Science Department, Texas A&M University  
2004 – 05  Co-Lead of Health Benefits Team, Vegetable and Fruit Improvement Center  
2005 -     Member, Intercollegiate Faculty of Nutrition  
2005 -     Associate Professor, Nutrition & Food Science Department, Texas A&M University  
2005 – 08  Chair, Intercollegiate Faculty of Nutrition  
2009 -     Member, Intercollegiate Faculty of Food Science and Intercollegiate Faculty of Genetics

Key Research Areas (Bulleted list)
Nutritional Sciences
Professional Memberships
Continued active membership in:
- American Society for Nutrition
- American Society of Animal Science
- American Society for the Advancement of Science
- The New York Academy of Sciences
- Society for Experimental Biology and Medicine
- Gamma Sigma Delta
- Women's Faculty Network
- American Physiological Society
- American Association for Cancer Research
- American Association of Cereal Chemists
- Sigma Xi

Honors / Awards Received (Lifetime, list date)
- Dan F. Jones Memorial Scholarship, 1990
- Registered as a Certified Nutrition Specialist, 1995
- 1998 Ethel Ashworth-Tsutsui Memorial Award for Mentoring, received 1/27/99
- Received a SEBM Travel Fellowship Grant to attend EB 2000.

Teaching, Research and Service (3-yr Summary)

A. Courses Taught, Semester, Cr Hrs, Number of Students Enrolled

2005/06

**Fall**  
**Undergraduate**  
*Nutrition 481.* Taught 1 section of Seminar (1).

AGLS 105H. Guest lecture on Nutrition and Cancer in 2 sections.

*Biochemistry 491.* Nicole Lebahn

*Nutrition 485.* Rebecca Akins (2 h)

**Graduate**  
*Nutrition 691.* Kim Paulhill, Jennifer Creel, Brenda Bustillos, Mi Kim, Dagoberto Sanchez, Anthony Siccardi (28 h)

**Spring**  
**Undergraduate**  
*Nutrition 481.* Taught 2 sections of Seminar (1).

*Nutrition 485.* Kristi Warrick (1 h)

**Graduate**  
*Nutrition 691.* Kim Paulhill and Brenda Bustillos (10 h)

*FSTC 630.* Guest lecture on Dietary Fiber and Human Health

**Summer**  
**Graduate**  
*Nutrition 691.* Kim Paulhill, Gentle Chikani and Brenda Bustillos (10 h)

2006/07
Fall  Undergraduate  Nutrition 481. Taught 1 section of Seminar (1).
Graduate  Nutrition 691. Kim Paulhill, Dagoberto Sanchez, Shawn Woods (11 h)

Spring  Undergraduate  Nutrition 481. Taught 1 section of Seminar (1).
Graduate  Nutrition 681. Taught 1 section of Seminar (1).

  Nutrition 691. Kim Paulhill (9 h).

Summer  Graduate  Nutrition 691. Kim Paulhill, Jayme Lewis (10 h)

2007/08

Fall  Undergraduate  Nutrition 481. Seminar (1). Taught 1 section.
Graduate  Nutrition 689. Fundamentals of Space Life Sciences (3).


Spring  Undergraduate  Nutrition 481. Seminar (1). Taught 2 sections.
Graduate  Nutrition 691. Graduate Research. Kim Paulhill, Jayme Lewis (15 h).

Summer  Graduate  Nutrition 691. Graduate Research. Kim Paulhill, Jayme Lewis (12 h).

2008/09

Fall  Undergraduate  Nutrition 481. Seminar (1). Taught 1 section.
Graduate  Nutrition 646. Fundamentals of Space Life Sciences (3).


Spring  Undergraduate  Nutrition 481. Seminar (1). Taught 1 section.

  Nutrition/Food Science 289. Horizons in Nutrition and Food Science Guest lecture.
Graduate  Nutrition 681. Section 602. Taught 1 section of Seminar (1).

  Nutrition/Kinesiology/Nuclear Engineering 681. Section 610. Space Life Sciences Seminar (1).

  FSTC 630. Guest lecture on Dietary Fiber and Human Health

Summer  Graduate  Nutrition 691. Graduate Research. Lauren Ritchie (6 h).
2009/10

Fall

Undergraduate  Nutrition 481. Seminar (1). Taught 1 section.


NUTR 691. Graduate Research. Lauren Ritchie (6 h).

Graduate Degrees – Student Name, Degree Earned, Placement (Name of Employer or Institution)

Kim Paulhill  M.S.  Nutrition  8/08

Jayme Lewis  M.S.  Nutrition  12/08

B. Three-year peer-reviewed publications (in chronological order), grants and intellectual property

Books, Book Chapters, White Papers, etc:


Peer-reviewed Journal Articles:


Presentations / Abstracts:


Grants (Funding Agency, Title, Funding Amount, Time Frame):

NSBRI/NASA. Co-PI with Joanne Lupton. Nutritional countermeasures to radiation-enhanced colon cancer. Funded $842,139 direct costs, 11/1/04 – 10/31/08.


USDA/ARS. PI. Sorghum bioactive constituents as colon cancer chemoprotectants. $28,800 direct costs 9/1/05 – 6/30/07.

CSREES/VFIC. PI. Does the antioxidant activity of quercetin influence the chemoprotective action of dietary n-3 fatty acids? $49,000 direct costs 9/1/05 – 8/31/07.
AICR. Co-Investigator/Mentor with Jairam Vanamala (post doc). Fish oil and pectin enhances apoptosis in colonocytes via inhibition of PGE2 and PPAR delta signaling and promotion of death receptor pathway. $25,000 direct costs 1/2/06 – 1/1/07).

NSBRI. Co-PI with Joanne Lupton. Ph.D. training program in critical areas of space life sciences. $2,030,090 direct costs/$2,133,178 total costs for 6 years. Funded 7/1/06 – 6/30/12.

NIH/NCI. Co-PI/Nutrition Coordinator with Raymond Carroll (Statistics). Nutrition, biostatistics and bioinformatics. Training grant renewal. $2,427,495 direct costs for 5 years. Funded 7/1/06 – 6/30/11. 5 R25 CA090301-07.

USDA/ARS. PI. Sorghum bioactive constituents as colon cancer chemoprotectants. $32,000 direct costs for 1 year. Funded 9/1/06 – 8/31/07. Extension granted.

USDA/VFIC. PI. Isolation and identification of quercetin and quercetin metabolites in plasma, urine, feces and liver. $42,000 direct costs for 1 year. Funded 9/1/06 – 8/31/08. Extension granted.

USDA/ARS. PI. Sorghum bioactive constituents as colon cancer chemoprotectants. $32,000 direct costs requested for 1 year. Funded 9/1/07 – 8/31/09. Extension granted.

CSREES/VFIC. PI. Quercetin’s role in the regulation of Phase I and Phase II enzyme expression patterns. $24,000 direct costs for 1 year. Funded 9/1/07-8/31/09.

CSREES/VFIC. PI. Stone fruit bioactives as colon inflammation suppressors. $34,000, direct costs for 1 year. Funded 9/1/08-8/31/10.

USDA/CSREES/VFIC. PI. Stone fruit bioactives – inflammatory mediators operating through toll-like receptors? $22,000 direct costs for 1 year. Funded 9/1/09-8/31/11.

United Sorghum Checkoff Program. Co-PI with Lloyd Rooney (Soil & Crop Sciences). Developing healthy foods from special sorghums. $102,000 direct costs for 2 years. Funded.

Intellectual Property, Patents, Software, etc

C. Service (3-yr Summary)

Department, College, University:

Judge, Brazos Valley Science Fair, Spring, 1998 – present

Became a member of the FRDP committee with the mission of developing both federal and state funding initiatives to support Foods for Health research.

Re-elected to Executive Committee of the Faculty of Nutrition, 2004-2007.

Re-appointed as Vice-Chair of Faculty of Nutrition, 2004-2007.

Served as Chair of the Intercollegiate Faculty of Nutrition, 2005-2008
Judge for the International Student Association International Buffet, 2/2008

Served as Past-Chair on the Executive Committee of the Faculty of Nutrition, 2008-2009

Reviewer for the 2009-2010 Graduate Diversity Fellowships.

Mentor, Graduate Teaching Academy, 2008-2009, Liyi Yang.

Elected to serve as the College of Agriculture representative to the Faculty Senate Subcommittee on Non-Tenure Track Faculty, 2009 – 2012


Member of the search committee for the Molecular/Cellular Nutrition position, 2005

Member of the Departmental Awards Committee, 2005-2006

Served as ex-officio member of the Graduate Program Committee, 2007-2008.

Member, Facilities Committee, Graduate Program Committee and Seminar Committee, 2008-2009.

Member, Facilities Committee (Chair), Graduate Program Committee, Seminar Committee, Ad hoc Survey Committee, and Subcommittee for Vivarium Operations, 2009-2010.

National / International Organizations:

Chair of the Postdoctoral proposal review committee for ASN, February 2006

Ad hoc member of the Chemo/Dietary Prevention study section, NIH, February 2006

Jury member, ASN Journalism Award and the ASN Conrad Elvehjem Award, October 2006

Elected to serve as the Secretary/Treasurer of the Nutrition Science Council for ASN, June 2007 – May 2010

Jury member, ASN Bio Serve Award, McCormick Institute Award and Weinsier Award, October 2007

Elected to serve as Chair-Elect of ASN Diet & Cancer Research Interest Section, April 2008-April 2009

Reviewer of Dr. Eva Schmelz’s Tenure package for Virginia Tech, 7/08

Reviewer of the Texas A&M-CONACYT: Collaborative Research Grant Program, 10/2008 – 2/2009

Co-chair of the Diet and Cancer session at the Experimental Biology meeting, April 2009

Member of the Food and Fibers Research Grant Proposal Review Panel, April 2009

Chair, Diet & Cancer RIS for ASN, June 1, 2009 – May 31, 2010
Elected a Councilor of the Society for Experimental Biology and Medicine, July 1, 2009 – June 30, 2013

Mentor, Sigma Xi representative to the Conrad Foundation, Spirit of Innovation Awards, September 2009-February 2010

Member Review panel for NSBRI postdoctoral proposals, September 2009

Editorial Work:
Assistant to Journal of Nutrition Associate Editor (Dr. Joanne Lupton)

Ad hoc reviewer for Bioresource Technology; Journal of Nutrition; Journal of Animal Science; Nutrition and Cancer; American Journal of Clinical Nutrition; Alcohol; Biochimica et Biophysica Acta; Acta Chimica Slovenica; Cancer Letters; European Journal of Clinical Nutrition; Cereals Food World; Carcinogenesis; British Journal of Nutrition; Acta Astronautica; Theoretical Biology & Medical Modelling; Molecular Nutrition and Food Research; Aviation, Space and Environmental Medicine; Cereal Chemistry; Journal of Applied Physiology; Amino Acids; Ethnicity and Disease; AJFAND; Journal of Zhejiang University – Science B; NIOSH of CDC

Appointed as Associate Editor of ASNS Nutrition Notes, 2000 – present
### Characteristics of Texas Public Doctoral Programs

*Programs included only if in existence 3 or more years. Program is defined at the 8-digit CIP code level.*

<table>
<thead>
<tr>
<th>Department</th>
<th>Doctoral Degree Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interdisciplinary Graduate Faculty of Food Science</td>
<td>Food Science &amp; Technology</td>
</tr>
</tbody>
</table>

#### Provided by OGS, OISP

#### Department Completes

<table>
<thead>
<tr>
<th>1</th>
<th>Number of Degrees Per Year</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Average, 2007-2009</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Rolling three-year average of the number of degrees awarded per academic year</strong></td>
<td>4.33</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2</th>
<th>Graduation Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Students Starting 1997-1999</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Rolling three-year average of the percent of first-year doctoral students who graduated within ten years. First-year doctoral students: Those students who have been coded as doctoral students by the institution and have either completed a master’s program or at least 30 SCH towards a graduate degree.</strong></td>
<td>100.00%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3</th>
<th>Average Time to Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Students Starting 1997-1999</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Rolling three-year average of the registered time to degree[3] of first-year doctoral students within a ten year period. [3] Registered time to degree: The number of semesters enrolled starting when a student first appears as a doctoral student until she completes a degree, excluding any time taken off during graduate study. The number of years is obtained by dividing the number semesters by three.</strong></td>
<td>3.41 yrs</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4</th>
<th>Employment Profile</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(In field within one year of graduation). Percentage of the last three years of graduates employed in academia, post-doctorates, industry/professional, government, and those still seeking employment (in Texas and outside Texas).</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Employed in Academia</strong></td>
<td>(1) 7.7%</td>
</tr>
<tr>
<td><strong>Employed as Post-Doctorates</strong></td>
<td>(3) 23.1%</td>
</tr>
<tr>
<td><strong>Employed in Industry/Professional</strong></td>
<td>(7) 53.8%</td>
</tr>
<tr>
<td><strong>Employed in Government</strong></td>
<td>—</td>
</tr>
<tr>
<td><strong>Still seeking employment</strong></td>
<td>(2) 15.4%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5</th>
<th>Admissions Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description of admission factors</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Minimum Requirements:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>3.0 GPA during last 60 hours of undergraduate coursework</strong></td>
<td></td>
</tr>
<tr>
<td><strong>1050 GRE (Combined Verbal and Quantitative Scores)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>550 TOEFL (paper test – this is the University requirement)</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>6</th>
<th>Percentage Full-time Students (FTS) with Financial Support</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>In the prior year, the percentage of FTS (≥ 18 SCH) with support/the number of FTS</strong></td>
<td>100.00%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>7</th>
<th>Average Financial Support Provided</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>For those receiving financial support, the average financial support provided per full-time graduate student (including tuition rebate) for the prior year, including research assistantships, teaching assistantships, fellowships, tuition, benefits, etc. that is “out-of-pocket”</strong></td>
<td>$19,680/yr</td>
</tr>
</tbody>
</table>
**Student-Core Faculty Ratio**

Rolling three-year average of full-time student equivalent (FTSE) / rolling three-year average of full-time faculty equivalent (FTFE) of core faculty. Core Faculty: Full-time tenured and tenure-track faculty who teach 50 percent or more in the doctoral program or other individuals integral to the doctoral program who can direct dissertation research.

**Core Faculty Publications**

Rolling three-year average of the number of discipline-related refereed papers/publications, juried creative/performance accomplishments, book chapters, notices of discoveries filed/patents issued, and books per year per core faculty member.

**Core Faculty External Grants**

Rolling three-year average of the number of core faculty receiving external funds, average external grant $ per faculty, and total external grant $ per program per academic year. All external funds received from any source including research grants, training grants, gifts from foundations, etc.

- Average of the Number of Core Faculty receiving external funds: 24
- Average External Grant $ per Faculty: $427,154
- Total External Grant $: $26,910,725

**Percentage Full-Time Students**

Rolling three-year average of the FTS (≥ 9 SCH)/number students enrolled (headcount) for last three fall semesters

**Number of Core Faculty**

Number of core faculty in the prior year

**Faculty Teaching Load**

Total number of semester credit hours in organized teaching courses taught per academic year by core faculty divided by the number of core faculty in the prior year

**Faculty Diversity**

Core faculty by ethnicity (White, Black, Hispanic, Other) and gender, updated when changed

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>Black</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

**Student Diversity**

Enrollment headcount by ethnicity (White, Black, Hispanic, Other) and gender in program in the prior year

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Black</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

**Date of Last External Review**

Date of last formal external review, updated when changed

**External Program Accreditation**

Name of body and date of last program accreditation review, if applicable, updated when changed

- Southern Association of Colleges and Schools (SACS)

**Student Publications/Presentations**

24.4
Rolling three-year average of the number of discipline-related refereed papers/publications, juried creative/performing arts

NOTE: It is acceptable to add a “comments” field to explain any anomalies.
#6 Assumes that a student received annual support of at least $1,000 (minimum that would qualify a student for the award).
#7 Average across 6 departments with faculty belonging to the Interdisciplinary Faculty of Food Science.
#13 Faculty teaching load is 0.77 hrs for formal courses only; 2.46 hrs for both formal and 685 (Directed Studies); 1.6