32ND ANNUAL UNIVERSITY-WIDE RESEARCH SYMPOSIUM

MARCH 15-19, 2010

ESEARCH:

CELEBRATING

EXCELLENCE

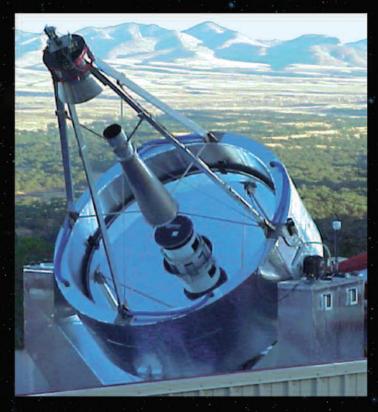
TENNESSEE STATE UNIVERSITY

UNDERGRADUATE RESEARCH:

A LEADING PERSPECTIVE ON INVENTING THE FUTURE



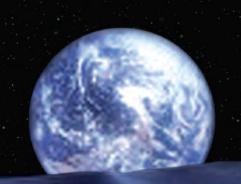
Qualified Students Welcome



The Center of Excellence in Information Systems Engineering and Management is an interdisciplinary research facility located on the Tennessee State University Main Campus in the Division of Research and Sponsored Programs Building. At the Center, TSU graduate and undergraduate students are presented with opportunities to participate in a genuine research environment. Major areas of research include:

- Astrophysics
- Advanced Control Systems and System Identification
 - Applied Mathematics

If you would like more information please call:
Dr. Michael R. Busby, Director
Center of Excellence in Information Systems
(615) 277-1601
http://coe.tsuniv.edu





32ND ANNUAL UNIVERSITY-WIDE RESEARCH SYMPOSIUM

MARCH 15-19, 2010

TENNESSEE STATE UNIVERSITY

OFFICIAL 2010 SYMPOSIUM PROGRAM

Cover photograph by Vando Rogers, Nashville, Tennessee. Undergraduate student researchers featured: David Lynes, (left) senior student, physics major and Al Wilson (right), senior student, mathematics major.

Orville Bignall, Ph.D.
Associate Professor and Coordinator for Physics Program
Department of Physics and Mathematics

Editor, Nannette Carter Martin



Celebrating Undergraduate Research at Tennessee State University

"Research-based learning must become the standard for undergraduate education."

Boyer Commission on Educating Undergraduates National Report



LaTasha Taylor and Marcell Pickens conducting undergraduate research aboard NASA's reduced gravity KC-135 plane. LaTasha is currently a Lockheed Martin engineer designing the astronaut crew compartment for the NASA Orion spacecraft and has applied to the NASA astronaut program.

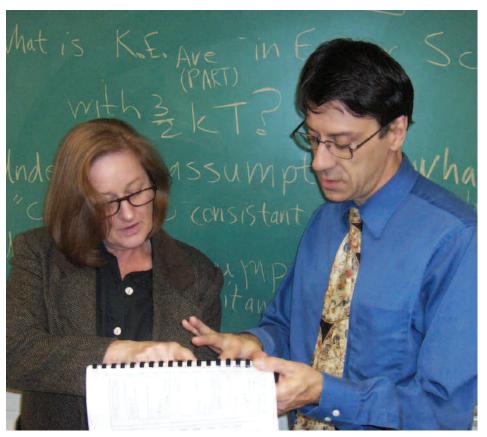
The 32nd Annual University-Wide Research Symposium celebrates our environment of research excellence here at Tennessee State University which has produced the synergistic coordination of multiple undergraduate-research initiatives.

The programs for undergraduate research at TSU include the Symposium, the Undergraduate Engineering Capstone Research Projects, the Minority Access to Research Careers (MARC) Program, the Undergraduate Research and Mentoring (URM) Program in Ecology and Environmental Science, and the Tennessee Louis Stokes Alliance for Minority Participation (TLSAMP). Many successful TSU alumni conducted research as part of their undergraduate education such as Jesse Russell ('72), inventor of key cell-phone technology who served as the 2009 Symposium keynote speaker; Levi Watkins ('66), leading cardiologist at Johns Hopkins University Hospital; and Latasha Taylor ('04), candidate for the NASA astronaut program.

Engagement in research and other scholarly activities has a profound impact on undergraduate students. According

to S. Keith Hargrove, Dean of the TSU College of Engineering, Technology and Computer Science, all graduating engineering students complete the capstone research projects, and, over the past five years, a majority of these seniors have excelled in academics. This success is consistent with the findings of published studies that have concluded that undergraduate students engaged in scientific research tend to enjoy higher GPA's, effectuate greater retention in advanced courses, elevate their technical and communication skills, energize their self-confidence, and enter graduate education programs and the STEM (Science, Technology, Engineering and Mathematics) professions in higher numbers.





Ms. Julia O'Connell, 2009-2010 UReCA scholar, discusses her research with TSU astronomer Dr. Geoffrey Burks.

In its 2005 publication, *A Vision of Research and Graduate Education*, the Tennessee Board of Regents (TBR) recommended that each TBR campus establish a Center of Undergraduate Research. In this vein, Dr. Maria Thompson, Vice President for the Division of Research and Sponsored Programs, created the Undergraduate Research and Creative Activities (UReCA) program at TSU

which has a mission to advance the student-centered research endeavors of the University. The UReCA program received initial TBR Access and Diversity Initiative Grant funding in 2009 to coordinate a STEM-focused research

journey for students through the six disciplines of biological science, chemical science, engineering, agricultural science, physics, and astronomy. In addition, the "Creative Activities" portion of the UReCA program is a TSU initiative that supports grant proposals for faculty from all disciplines including music and art. UReCA is a component of The Scholars Experience program at TSU which is also a unique network of university-wide student-development programs focused on creating the holistic scholar.

The acronym UReCA is pronounced identically to the exclamation "Eureka!" - which derives from a Greek word for discover - accordant with the future of research at the University. As stated by Dr. Thompson, "UReCA supports the University's strategic integrative goal of becoming a premier public research landgrant university and a destination campus in the region."

2009-2010 UReCA Scholars

Agriculture, Jenae Smith
Astronomy, Julia O'Connell
Biology, Hartman Madu
Chemistry, Deanna Bowman
Engineering, Carmen Hollingsworth
Mathematics and Physics, Kimberly Eakins

UReCA Director - Todd Gary, Ph.D.
UReCA Coordinator - Mrs. Robin Madison
www.tnstate.edu/research





Undergraduate students use CytoViva microscope system to perform hyperspectral imaging and fluorescent microscopy in Nanoscience and Biotechnology Core research laboratories; Director – Susan Verbene–Sutton. Left: Jeremy Young, junior, veterinary science. 2009–2010 exchange student from the University of Arizona. Right: Anthony Spann, senior, electrical engineering. Top right: Kimberly Eakins, senior, physics. UReCA Scholar.



TENNESSEE STATE UNIVERSITY 3500 John A. Merritt Boulevard Nashville, Tennessee 37209-1561



OFFICE OF THE PRESIDENT

March 15, 2010

Dear Colleagues:

It brings me great pleasure to welcome each of you to Tennessee State University's 32nd annual University-wide Research Symposium. I commend the Division of Research and Sponsored Programs for bringing together many of the University's most brilliant minds to engage in spirited dialogue and discussion about the fruits gathered after months of laborious research in our STEM disciplines.

Each year, I look forward to chatting with our faculty and student researchers about the exciting projects they are producing right here at the University. This year's symposium, themed "Research: Celebrating Excellence," proves to be even more special, as the program highlights our greatest assets—our students.

In addition to the interaction our young research scholars will certainly glean from the research talent assembled at this event, the opportunity to be commended among peers and contemporaries in their fields for outstanding research is truly a hallmark of academia.

The dedication and persistence our student researchers will display throughout the week shows that they too have made a commitment to meeting my challenge of positioning Tennessee State University as one of the top-tier research institutions in the nation. Their creativity and technological insight demonstrated certifies that the future of scientific advancement is in capable, intuitive hands.

As you participate in discussions throughout this symposium, please remember that Tennessee State University has a commitment to excellence in research.

Sincerely,

Melvin N. Johnson

President

"A Commitment to Excellence"
AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER M/F



OFFICE OF
THE VICE PRESIDENT

TENNESSEE STATE UNIVERSITY RESEARCH AND SPONSORED PROGRAMS 3500 JOHN A. MERRITT BOULEVARD NASHVILLE, TENNESSEE 37209-1561



March 15, 2010

Dear Colleagues:

Welcome to the 32nd Annual University-Wide Research Symposium showcasing our endeavors to engage undergraduate students in scholarly and creative research.

The Symposium permits each participant to experience a week of interdisciplinary presentations wherein judges decide competitive awards that span multiple sections of research pursuits. These research presentations are delivered to the campus and community by our students under the collaborative mentoring of faculty which yields both seasoned scholarship and competitive creativity.

Our Symposium theme is "Research: Celebrating Excellence," and the sub-title is, "Undergraduate Research—A Leading Perspective on Inventing the Future." Undergraduate research is an essential tool of education because education is a process of mentoring. The word education is derived from its Latin root words of *educare* meaning "to rear" and *educere* meaning "to pull out." As a process of mentoring in education, professors both impart established information to students and rear these students to investigate uncertain or untested matters, thereby equipping this next generation to create or to pull out more clarity of knowledge. The nerve center of this process at Tennessee State University is the Undergraduate and Creative Activities (UReCA) Program, which advances the continuing research mission of the University by coordinating the teamwork of more than eight university-wide programs. The UReCA Program engages undergraduate students in scholarly endeavors within all disciplines and supports faculty in working with these students to obtain external funding for their research endeavors.

On behalf of the Division of Research and Sponsored Programs, we celebrate our environment of research excellence which is produced by the synergistic coordination of multiple undergraduate-research initiatives.

Sincerely,

Maria Thompson, Ph.D.

Vice President

Research and Sponsored Programs

"A Commitment to Excellence"

AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER M/F



The Research Symposium

A BRIEF HISTORY

The Annual University-Wide Research Symposium at Tennessee State University is celebrating 32 years of providing an opportunity for faculty, undergraduate, and graduate students to present their research. In 1979, the event started as Research Day and it was renamed University-Wide Research Day in 1981. During the early years, only oral presentations were given. Since 1995, both poster and oral presentations have been included. Also, in 1995, the number of presentations had increased so much that all activities could not be completed in one day. Consequently, the name was changed from Research Day to Research Symposium where there are now five days of activities, including presentations from several speakers from various disciplines. Dr. Rubye Torrey, Assistant Vice President for Research and Professor of Chemistry (*Emeritus*), was the first Research Day Chair (1979-1981). TSU honored Dr. Torrey at the 2008 Symposium.

In 1979, the winners of the student presentations and their advisors were: Tyrone McKinnie (Richard Hogg, Advisor), George Pruitt (Rudolph Woodberry, Advisor) and Karen Sharp (Sandra Sheick, Advisor). Faculty presenters included Baqar A. Husaini (Sociology); Robert Taylor (currently Dean of Agricultural and Environmental Sciences, Alabama A&M University); Asalean Springfield (English), and Sandra Scheick (Mathematics). Remarks were given by then-Governor Lamar Alexander, Congressman John Bray, Mayor Richard Fulton, Fisk University President Walter Leonard, Meharry Medical College President Richard Lester, and Vanderbilt University President Emmett Fields.

Over the ensuing 32 years of annual symposia, the following persons have served as Symposium Chairs: Rubye Torrey (1979-1981), Jacquelyn Martin (1982-1986), Joan Elliot (1987-1994), Carolyn Caudle (1995-1999), Elbert Lewis Myles (2000-2004), Elaine Martin (2005-2007), and Brenda McAdory and Valerie Williams (2008-2009).

The Dean of the College of Arts and Sciences (Wendolyn Bell, Bobby Lovett, William Lawson, and Interim Dean Gloria Johnson) has supported the research symposium from its inception. In 1995, Maurice Mills (Director, Office of Sponsored Research) embraced the vision of the research symposium being campus wide and being supported by, not only the College of Arts and Sciences, but also by the Office of Sponsored Research with increased financial and human resources. With Carolyn Caudle (Faculty Liaison, OSR) at the helm of the research symposium leadership, activities moved to a new level. She re-established the presentation times to 15 minutes and introduced concurrent sessions. The symposium reached a peak of 130 presentations during her chairmanship. Caudle instituted advertisements in the symposium booklet from schools, departments and institutes throughout the University. Caudle's co-chair, Nannette Martin, and later Jovita Wells, assisted in the design of the Research Symposium booklets and many of the advertisement pages. In 2004, Marcus W. Shute, first Vice President for the Division of Research and Sponsored Programs, significantly increased the level of financial support for the Symposium and began the tradition of inviting TSU alumni engaged in research careers to speak to students during the awards luncheon. The research symposium booklets were given to all attendees and were used as a recruitment tool for students and faculty by the University's president, School of Engineering and other departments and schools of the University. The research symposium booklet (or program) also became a means to showcase various research activities at Tennessee State University.

Vice President Maria Thompson of the Division of Research and Sponsored Programs and Interim Dean Gloria Johnson of the College of Arts and Sciences continue to support the chairs of the Research Symposium. Only the research titles and authors are now published in the program booklet, while the abstracts and presentations are published on Tennessee State University's research website (www.tnstate.edu/research).

OVERVIEW OF EVENTS

wonday, warch	1 15, 2010
8:00 am - 9:00 am	Symposium Programs Available Research and Sponsored Programs Building, First Floor Lobby
	Spring Break Academy- High School Jr. and Sr. students visit campus for "The Life of a College Student."
School of Nursing Da	y 8:00 am - 1:00 pm
11:30 a.m. – 12:40 p.m.	Luncheon Dr. Pamela C. Hull, speaker – Associate Director, Center for Health Research, TSU James E. Farrell - Fred E. Westbrook Building, 118
Association of Pre-Pro Research and Sponsored Pr	ofessional Life Scientists- APLS Day 1:00 p.m. – 9:00 p.m. ograms Building
1:00 p.m. – 4:00 p.m.	Conference Room 209 APLS Webinar Theater - Science Careers Away from the Bench; Effective Lab Skills: Managing People, Projects and Money; Open Innovation and Social Networking
1:00 p.m. – 2:00 p.m.	Nanoscience and Biotechnology Core Facility Genetics Workshop with High School Students: Crime Scene Investigation
2:00 p.m. – 3:30 p.m.	Conference Room 163 APLS Life Science Challenge and Competition
3:30 p.m. – 5:00 p.m.	Panel Discussion with Faculty/Administrators - Success in Science: Beyond the Classroom
5:00 p.m. – 6:00 p.m.	First Floor Lobby Reception and Professional Mixer
6:00 p.m. – 9:00 p.m.	Floyd-Payne Campus Center Forum Featured Film
Tuesday, March	16, 2010
8:00 am - 9:00 am	Symposium Programs Available Research and Sponsored Programs Building, First Floor Lobby
	Spring Break Academy- High School Jr. and Sr. students visit campus for "The Life of a College Student."
GRADUATE ORAL PRESENT	TATIONS All Presentations will be in the Research and Sponsored Programs Building, Room 163
8:30 a.m 11:30 a.m.	SCIENCES
2:00 p.m 4:15 p.m.	SCIENCES
10:00 am - 12:00 noon	Judging for Graduate and Undergraduate Posters Research and Sponsored Programs Building, Lower Level
Engineering Day – 11 Farrell-Westbrook Building,	
11:30 a.m 1:00 p.m.	Luncheon Presentation by Dr. S. Keith Hargrove, speaker – Dean, College of Engineering, Technology and Computer Science
3:00 p.m.	RSP Building, Robotics Laboratory Robotics demonstration for high school students
Agriculture and Const Agricultural Information and	umer Sciences Day 1:00 p.m. – 2:45 p.m. Technology Center
1:00 p.m.	Presentation by Dr. Maria Browning, speaker – Extension Animal Scientist, Alabama A&M University
2:00 p.m 2:45 p.m.	Biotechnology and Food Safety demonstrations for high school students
Wednesday, Ma	arch 17th, 2010
8:00 am - 9:00 am	Symposium Programs Available Research and Sponsored Programs Building, First Floor Lobby
	Spring Break Academy- High School Jr. and Sr. students visit campus for "The Life of a College Student."
GRADUATE ORAL PRESENT	ATIONS All Presentations will be in the Research and Sponsored Programs Building, Room 163
9:00 a.m. – 9:45 a.m.	HEALTH, EDUCATION, AND SOCIAL SCIENCES
3:15 p.m. – 4:30 p.m.	ENGINEERING
10:00 am - 12:00 noon	Judging for Graduate and Undergraduate Posters Research and Sponsored Programs Building, Lower Level

OVERVIEW OF EVENTS

Wednesday, March 17, 2010 continued

8:00 am - 9:00 am	Symposium Programs Available Research and Sponsored Programs Building, First Floor Lobby
Intelligence Studies Agricultural Information and	Day 9:10 a.m. – 5:30 p.m. d Technology Center
9:10 a.m 10:10 a.m.	Globalization and Terrorism Workshop
10:20 a.m. – 11:20 a.m.	Intelligence Community Career Fair Farrell-Westbrook Building, 118
11:30 a.m. – 1:00 p.m.	Luncheon Presentation by Maura Burns, Issue Manager, Central Intelligence Agency
1:00 p.m. – 1:20 p.m.	Intelligence Community Career Fair
1:30 p.m. – 2:15 p.m.	790th AFROTC Detachment Tour Floyd-Payne Center
2:30 p.m. – 3:20 p.m.	Introduction to Biological Sciences, Biological Sciences Laboratory Demonstrations - McCord Hall
3:30 p.m. – 4:30 p.m.	Globalization and Terrorism Workshop Research and Sponsored Programs, Room 209
4:30 p.m 5:30 p.m.	Scholars Reception Research and Sponsored Programs Lobby
<u> </u>	rch 18th, 2010
8:00 am - 9:00 am	Symposium Programs Available Research and Sponsored Programs Building, First Floor Lobby
UNDERGRADUATE ORAL P	RESENTATIONS All Presentations will be in the Research and Sponsored Programs Building, Room 163
8:30 a.m. – 11:15 p.m.	SCIENCES
3:00 p.m. – 3:30 p.m.	ENGINEERING
3:30 p.m. – 3:45 p.m.	HUMANITIES
2:00 p.m. – 4:00 p.m.	Judging for Graduate and Undergraduate Posters Research and Sponsored Programs Building, Lower Level
Chemistry Day 9:00 Alger V. Boswell Building	a.m. – 7:00 p.m.
9:00 a.m 12:00 p.m.	Career Fair
10:00 a.m 11:00 a.m.	Chemistry Demonstrations
11:00 a.m 12:00 p.m.	Chemistry Challenge
12:00 p.m 2:30 p.m.	Student Poster Presentations
2:40 p.m 4:00 p.m.	Presentation by Ruth Woodall, Director of Tennessee Scholars Program, speaker
5:00 p.m.	Dinner and Awards - James E. Farrell-Fred E. Westbrook Building, 118
Psychology Day 11 James E. Farrell-Fred E. We	·
11:30 a.m.	Luncheon Presentation - Dr. Jim O'Neil, speaker, Professor of Educational Psychology and Family Studies, Univ. of Connecticut
RSP 209	
1:00 p.m 2:30 p.m.	Poster Session (student research)
2:30 p.m 4:00 p.m.	Presentation Dr. Jim O'Neil, speaker— Professor of Educational Psychology and Family Studies, University of Connecticut
4:15 p.m 5:30 p.m. 5:45 p.m 7:00 p.m.	Panel Discussion: Completing your senior project, thesis, and dissertation Awards Ceremony
Friday, March	
8:00 am - 9:00 am	Symposium Programs Available Research and Sponsored Programs Building, First Floor Lobby
9:00 a.m. – 9:45 a.m.	Faculty Oral Presentations All Presentations will be in the Research and Sponsored Programs Building, Room 163
Student Awards Cer James E. Farrell-Fred E. We	remony
11:30 a.m. – 1:00 p.m.	Welcome Dr. Brenda McAdory, Symposium Co-Chair
11.00 a.iii. — 1.00 p.iii.	Luncheon
	Presentation of Awards Dr. Maria Thompson, Vice President for Research and Sponsored Programs
	Acknowledgements Ms. Valerie Williams, Symposium Co-Chair and Closing Remarks
1:00 nm	
1:00 pm	Adjournment

A Spring Break Academy

The Life of a College Student **March 15-17, 2010**

Agenda for Local Junior and Senior High School Students

TIME	Monday March 15, 2010	Tuesday March 16, 2010	Wednesday March 17, 2010
8:30 - 9:00 RSP Room 209	Welcome Check-in Group Assignment	Welcome Check-in Application Check	Welcome Check-in Application Check
9:10 - 10:10	TSU History The University I Selected TSU Student Panel RSP Room 209	What America Do We Have? Career Development Center RSP Room 209	HBCU-UP Program HS Students Globalization and Terrorism Workshop TSU Students, Faculty, Staff, and Guests AITC Center
10:20 - 11:20	Admission Requirements and Financial Aid Discussion RSP Room 209	College Life "Academics My major My schedule My study habits" TSU Student & Faculty Panel RSP Room 209	Intelligence Community Career Fair Farrell-Westbrook Building, 118
11:30 - 1:00	Lunch in Student Center and Accountability Check	Lunch in Student Center and Accountability Check	Research Symposium Lunch and Accountability Check Farrell-Westbrook Building, 118
1:00 - 2:00	CSI-Crime Scene Investigation "Hands-On" Science Experiments with Nano Lab Tour RSP Room 209	College of AG & Consumer Sciences AITC Center Veterinary Science Majors and Careers Virtual Learner Experience	1:00-1:20 Intelligence Community Career Fair in Hallway of Farrell-Westbrook Bldg, 118 1:30 - 2:15 790th AFROTC Detachment Tour
2:00 - 3:00	APLS Life Science Challenge/Game RSP Room 209	2:00-2:45 College of AG & Consumer Sciences Biotechnology and Food Safety demonstrations	790th AFROTC Detachment Tour 2:30-3:20 pm - McCord Hall Biology Lab Tour
3:00 - 4:00	APLS Workshop: How to be a Scientist-What you will not learn in a classroom RSP Room 209	College of Engineering Robotics Lab Tour Holland Hall Room 323	3:30 - 4:40 Globalization and Terrorism Workshop HS Students RSP Room 163
4:00 - 4:30	 Connections Look to Tomorrow Accountability Business Attire Discussion Dress Business on March 16, 2010 RSP Room 209 	 Connections Look to Tomorrow Accountability Wear "I Love TSU" T-shirt for March 17, 2010 RSP Room 209 	- HS Student Survey - Reception 4:30 to 5:30 PM RSP Lobby and Room 163 - Awards presentation for "A Spring Break Academy" to follow Reception

SCIENCES

Graduate Oral Presentations

Tuesday, March 16, 2010 MORNING SESSION

racsaay,	TVICIT CIT	TO, ZOTO WORKING SESSION
All Presentatio	ns will be in	the Research and Sponsored Programs Building Room 163
8:30	TA1	FACTORS AFFECT BIOMASS ALLOCATION OF FORESTS IN CHINA Le, Xuan L.* and Hui, Dafeng; Advisor, Dr. Dafeng Hui. School of Agriculture and Consumer Sciences
8:45	TA2	AFRICAN SCIENTISTS IN DIASPORA: RELEVANCE AND IMPACTS ON THEIR CONTINENT Otukpe, F.*; Advisor, Dr. Surrendra Singh. School of Agriculture and Consumer Sciences
9:00	ТАЗ	INFLUENCE OF DIET INDUCED OBESITY ON AVIAN CARDIOMYOPATHY Boatswain, Thea; Advisor, Dr. Samuel Nahashon. School of Agriculture and Consumer Sciences
9:15	TA4	A GENOMIC AND PROTEOMICS APPROACH FOR IDENTIFYING GENES ASSOCIATED WITH FAT ACCRETION IN POULTRY Kelley, Gary*; Advisors, Drs. Samuel Nahashon and Fur Chi Chen. School of Agriculture and Consumer Sciences
9:30	TA5	ORGANIC FARMING AND THE CONVERSION FACTORS FROM CONVENTIONAL FARMING IN TENNESSEE Da Silva, Sherese*; Advisors, Drs. Dharma S. Pitchay and Surrendra Singh. School of Agriculture and Consumer Sciences
9:45	TA6	EVALUATION OF OPTIMUM CALCIUM AND PHOSPHORUS REQUIREMENT OF THE PEARL GREY GUINEA FOWL Glover, Lakesha*; Advisor, Dr. Samuel Nahashon. School of Agriculture and Consumer Sciences
10:00	ТА7	EVALUATION OF PROGRESSION AND AMELIORATION OF FURAZOLIDONE INDUCED CARDIOMYOPATHY IN CHICKENS Branham, Ketedrea*; Advisor, Dr. Samuel Nahashon. School of Agriculture and Consumer Sciences
10:15	TA8	CHARACTERIZATION OF A TN5 MUTANT OF THE SOFT ROT BACTERIUM PECTOBACTERIUM CAROTOVORUM Kersey, Caleb*; Advisor, Dr. Korsi Dumenyo. School of Agriculture and Consumer Sciences
10:30	ТА9	ALTERED CARDIAC FUNCTION IN FURAZOLIDONE-INDUCED CARDIOMYOPATHY IN CHICKENS Brown, Ashley*; Advisor, Dr. Samuel Nahashon. School of Agriculture and Consumer Sciences
10:45	TA10	RHIZODEGRADATION OF THE INSECTICIDE BIFENTHRIN IN DIFFERENT SOILS Le, Xuan *, Liu, Zong, and Dzantor, E. Kudjo; Advisor, Dr. Kudjo Dzantor. School of Agriculture and Consumer Sciences
11:00	TA11	OPPORTUNITIES AND CHALLENGES IN THE GOAT MEAT INDUSTRY IN THE UNITED STATES Favors, Delicia*; Advisor, Dr. Surrendra P. Singh. School of Agriculture and Consumer Sciences
11:15	TA12	EXAMINING THE PROFILE OF SMALL BUSINESSES IN THE BLACK BELT REGION Allen, Derek*; Advisor, Dr. James Bukenya. Agribusiness
Tuesday,	March	16, 2010 AFTERNOON SESSION
2:00	TP13	TETRABROMOBISPHENOL A CAUSES ACTIVATION OF MITOGEN ACTIVATED PROTEIN KINASES IN HUMAN NATURAL KILLER CELLS Cato, A.*, Kibakaya, E., and Whalen, M.; Advisor, Dr. Margaret Whalen. Department of Biological Sciences
2:15	TP14	INITIAL CHARACTERIZATION OF PLANT METABOLITES INDUCING VIRULENCE IN SOFT ROT PATHOGEN, PECTOBACTERIUM SPP. Agyemang, Paul* and Kersey, Caleb; Advisor, Dr. Charles. K. Dumenyo. Department of Biological Sciences
2:30	TP15	ACTIVATION OF PROTEIN KINASE D IS PART OF THE NK CELL SIGNALING PATHWAY ACTIVATED IN THE TUMOR-CELL DESTROYING PROCESS Rana, K.* and Whalen, M.; Advisor, Dr. Margaret Whalen. Department of Chemistry
2:45	TP16	DESIGN AND SYNTHESIS OF FLUORINATED CHROMEN-5(6H)-ONE AS POTENTIAL ANTICANCER AGENTS

3:00	TP17	MOBILITY AND REACTIVITY OF NANOPARTICULATE ZERO VALENT IRON IN GROUNDWATER Janumpalli, Harini* and Harris, Justin; Advisor, Dr. Roger Painter. Department of Chemistry
3:15	TP18	ROBUST STABILITY AND STABILIZATION OF NON-LINEAR STOCHASTIC DISCRETE- TIME SYSTEMS Sathananthan, S., Keel, L. H., and Strong, A.*; Advisor, Dr. Sivapragasm Sathananthan. Dept. of Mathematics and Physics
3:30	TP19	SIMPLE STATISTICAL RESULTS OF FOUR NETWORK TOPOLOGIES IN THE DISCOVERY PROBLEM Knap, Michael*; Advisor, Dr. Stefan Forcey. Department of Mathematics and Physics
3:45	TP20	AN ALGORITHMIC APPROACH TO PARAMETRIC STABILITY IN SYSTEMS CONTROL DESIGN Keel, L. H., Battacharyya, S. P, and Knap, M.*; Advisor, Dr. Lee H. Keel. Department of Mathematics and Physics
4:00	TP21	ROBUST H-INFINITY CONTROL OF LINEAR STOCHASTIC SYSTEMS UNDER MARKOVIAN SWITCHING Sathanathan, S, Ladde, G. S., Keel, L. H, and Knap, M.*; Advisor, Dr. Lee H. Keel. Department of Mathematics and Physics

HEALTH, EDUCATION, AND SOCIAL SCIENCES

Graduate Oral Presentations

Wednesday, March 17, 2010 MORNING SESSION

All Pre	All Presentations will be in the Research and Sponsored Programs Building Room 163		
9:00	WA1	PREVENTATIVE MEASURES FOR SHOULDER OVERUSE INJURIES IN BASEBALL PITCHERS: STRENGTH TRAINING VS. KINESIOTAPE Ballard, J.*, Studer, J., and Young, A.; Advisor, Dr. Thomas Bukoskey. Department of Physical Therapy	
9:15	WA2	EFFECTS OF ECCENTRIC TRAINING ON ACHILLES TENDINOPATHY Izadi, E.*; McFarlane, K., Scollard, J. and Sherlock, C.; Advisor, Dr. Thomas Bukoskey. Department of Physical Therapy	
9:30	WA3	FACTORS INFLUENCING MEN'S MEDICAL VISITS Davidson, M.*, Hull, P., Reece, M., Emerson, J., Cain, V., Schlundt, D., and Levine, R.; Advisor, Dr. Pamela Hull. Center for Health Research	

ENGINEERING

Wednesday, March 17, 2010 AFTERNOON SESSION

3:15	WP4	DESIGN OF A MONITORING SYSTEM FOR STRENGTH DEVELOPMENT IN QUADRICEP MUSCLES TO REDUCE ACL INJURIES Perkins, Anita.*; Advisor, Dr. Mohammad, Bodruzzaman. Department of Electrical Engineering
3:30	WP5	SECURITY SYSTEM FOR HETEROGENEOUS WIRELESS SENSOR NETWORKS McNeal, McKenzie*; Advisor, Dr. Chen Wei. Department of Electrical Engineering
3:45	WP6	STATIC COMFORT ASSESSMENTS FOR EJECTION SEAT CUSHIONS IN THREE DIFFERENT RAIL ANGLES Ojetola, Akindeji*; Advisor, Dr. Landon Onyebueke. Department of Mechanical and Manufacturing Engineering
4:00	WP7	DEVELOPMENT OF A COMPUTER AIDED DESIGN TECHNIQUE FOR SEAT COMFORT ANALYSIS Amer, Saed*; Advisor, Dr. Landon Onyebueke. Department of Mechanical and Manufacturing Engineering
4:15	WP8	DISTRIBUTED CONTROL METHODOLOGY FOR COORDINATION OF SYSTEMS McCurry, Charles D.*; Advisor, Dr. M. S. Zein-Sabatto. Department of Computer and Information Systems Engineering

SCIENCES

Undergraduate Oral Presentations Thursday, March 18, 2010 MORNING SESSION

All Presentations will be in the Research and Sponsored Programs Building Room 163		
8:30	RA1	REPRODUCTIVE OUTPUT OF MEAT GOAT DOES IN RELATION TO THEIR WEANING WEIGHT RATIOS Dixon-Lewis, Dawnn*; Advisor, Dr. Richard Browning. School of Agriculture and Consumer Sciences
8:45	RA2	DEVELOPING A RAPID TECHNIQUE FOR SEX DIFFERENTIATION OF THE GUINEA FOWL AT EARLY AGE Young, Jeremy*; Advisor, Dr. Samuel N. Nahashon. School of Agriculture and Consumer Sciences
9:00	RA3	THE DESIRABLE AND UNDESIRABLE TRAITS IN MEAT GOATS Smith, Jenae*; Advisor, Dr. Surrendra Singh. School of Agriculture and Consumer Sciences

9:15	RA4	GENERATING GENOMIC RESOURCE INFORMATION OF THE GUINEA FOWL THROUGH cDNA LIBRARY CONSTRUCTS OF THE HYPOTHALAMUS
		Bonner, Niesha*; Advisor, Dr. Samuel N. Nahashon. School of Agriculture and Consumer Sciences
9:30	RA5	ANALYSIS OF EFFECTS OF DICHLORO-DIPHENYL-TRICHLOROETHANE (DDT) ON NATURAL KILLER CELLS Udoji, Felicia* and Whalen, Margaret; Advisor, Dr. Margaret Whalen. Department of Biological Sciences
9:45	RA6	EXPLORING THE MODULATION OF L-AROMATIC AMINO ACID DECARBOXYLASE EXPRESSION IN THE STRIATUM OF THE MPTP-PD MOUSE MODEL
		Dean V, Warren and Charlton, Clivel; Advisor, Dr. Clivel Charlton. Department of Biological Sciences
10:00	RA7	DETERMINATION OF THE LEVEL OF GROWTH INHIBITION IN THE CANCER CELL LINE SW620 USING EXTRACTS FROM BLACK TEA, GREEN TEA, AND WHITE TEA Madu, Hartman*; Advisor, Dr. E. Lewis Myles. Department of Biological Sciences
10:15	RA8	PD-CATALYZED MICROWAVE IRRADIATED CROSS-COUPLING REACTIONS FOR CHALCONE SYNTHESIS Ng, Eunice*; Advisor, Dr. Mohammad Al-Masum. Department of Chemistry
10:30	RA9	SYNTHESIS AND CHARACTERIZATION OF ACRIDONE DERIVATIVES AS POTENTIAL BIOLOGICALLY ACTIVE COMPOUNDS Bogan, Deanna*, Okoromoba, Otome, and Okoro, Cosmas; Advisor, Dr. Cosmas Okoro. Department of Chemistry
10:45	RA10	CHARACTERIZATION OF POLY-LACTIC-GLYCOLIC ACID NANOPARTICLE AND SELF ASSEMBLE MONOLAYERS (SAMS) USING SCANNING PROBE MICROSCOPE Eakins, Kimberly*; Advisors, Drs. Lizhi Ouyang and Susan Verberne-Sutton. Department of Mathematics and Physics
11:00	RA11	IMPROVING TSU'S AUTOMATED SPECTROSCOPIC TELESCOPE O'Connell, Julia; Advisor, Dr. Matthew Muterspaugh. Department of Mathematics and Physics

ENGINEERING

Undergraduate Oral Presentations

Thursday, March 18, 2010 AFTERNOON SESSION

All Presentations will be in the Research and Sponsored Programs Building Room 163

3:00	RP12	SENSOR-BASED ROBOTICS NAVIGATION
		Hollingsworth Carmen*: Advisor Dr Tamara Rogers Department of Mechanical and Manufacturing Engineering

3:15 RP13 WATER QUALITY OF AN URBAN SPRING FEEDING A WETLAND SYSTEM IN NASHVILLE, TN Carlton Cobb*; Advisor, Dr. Tom Byl. Department of Civil and Environmental Engineering

Knight, Lezlie*, Tep, Linna, and Triplett, Meghan; Advisor, Dr. Sandra Holt

HUMANITIES Group Presentation

3:30	RP14	STUDENTS AND CREDIT CARD DEBT Rogers, Brandy*, Sparkman, Charles, Watts, Amelia, and Sledge, Champagne; Advisor, Dr. Sandra Holt
3:30	RP15	SEX AND VIDEO GAME VIOLENCE Moore, Darrin*, Drake, Delores, Freeman, Derravia, Johnson, Derrick, and Freeman, Cordarius; Advisor, Dr. Sandra Holt
3:30	RP16	YOUTH VIOLENCE

Faculty Oral Presentations

Friday, March 19, 2010

All Presentations will be in the Research and Sponsored Programs Building Room 163

9:00	FA1	PERCEPTIONS AND KNOWLEDGE ABOUT BIOTECHNOLOGY BY FARMERS, CONSUMERS, AND
		EXTENSION AGENTS IN GHANA
		Tegegne, F.*, Nahashon, S., Aziz, A., and Dumenyo, K. School of Agriculture and Consumer Sciences

9:30 FA2 TENNESSEE'S MINORITY AND UNDERSERVED LANDOWNERS: DETERMINANTS OF INTERESTS IN DIVERSIFIED FARM/FOREST LAND STEWARDSHIP

Appleton, Nathaniel S.*, Catlin, Carter, and Mrema, Frank. School of Agriculture and Consumer Sciences

Poster Presentations Undergraduate Students

Poster Presentations will be in the Research and Sponsored Programs Building, Lower Level

BIOLOGICAL SCIENCES

- P1 EFFECTS OF NONYLPHENOL EXPOSURES ON ATP LEVELS IN HUMAN NATURAL KILLER CELLS Reid, Jacqueline* and Martin, Tamara; Advisor, Dr. Margaret Whalen. Department of Biological Sciences
- P2 TRICLOSAN CAUSES PERSISTENT SUPPRESSION OF THE IMMUNE FUNCTION OF HUMAN NATURAL KILLER CELLS

Martin, Tamara* and Whalen, Margaret; Advisor, Dr. Margaret Whalen. Department of Biological Sciences

- P3 NONYLPHENOL INTERFERES WITH THE IMMUNE FUNCTION OF HUMAN NATURAL KILLER CELLS Etherton, Rachel* and Whalen, Margaret; Advisor, Dr. Margaret Whalen. Department of Biological Sciences
- P4 CHRONIC ETHANOL PROMOTES CELL DEATH

 Jackson, Catherine*, Dugger, Taylor, Washington, Brittany M., and Mtshali, Charlie; Advisor, Dr. Benny Washington.

 Department of Biological Sciences
- P5 CONSTRUCTING METALLO-ORGANIC FRAMEWORK UTILIZING SUPRAMOLECULARS
 Byrd, Crystal* and Siddiquee, Tasneem; Advisor, Dr. Tasneem Siddiquee. Department of Biological Sciences

CHEMISTRY

- P6 SPECTROSCOPIC STUDIES OF THE INTERACTION OF AMYLOID-BETA WITH METAL IONS Arnett, Shirelle* and Phambu, Nsoki; Advisor, Dr. Nsoki Phambu. Department of Chemistry
- P7 OXIDATION PREVENTION OF METALLIC NANOPARTICLES USING EXOPOLYSACCHARIDES
 Ryan, Lindsey*; Advisor, Dr. Koen Vercruysse. Department of Chemistry
- P8 INTERACTION BETWEEN A SYNTHETIC PEPTIDE AND METAL IONS
 Mason, Zanetta* and Phambu, Nsoki; Advisor, Dr. Nsoki Phambu. Department of Chemistry
- P9 SYNTHESIS AND CHARACTERIZATION OF BI2TE3/SIO2 NANOCOMPOSITES Zhou, Jing* and Moore, Joshua, T.; Advisor, Dr. Joshua T. Moore. Department of Chemistry
- P10 INFRARED STUDY OF POLYSACCHARIDE STABILIZED NANOPARTICLES
 Johnson, Damitea* and Vercruysse, Koen; Advisor, Dr. Koen Vercruysse. Department of Chemistry
- P11 STUDIES ON THE EFFECT OF XANTHOPHYLL (LUTEIN) ON IRON-INDUCED LIPID PEROXIDATION IN METHYL LINOLENATE
 St.Louis, Murcellus*; Advisor, Dr. William Boadi. Department of Chemistry
- P12 NONYLPHENOL DECREASES THE TUMOR-CELL BINDING FUNCTION OF HUMAN NATURAL KILLER LYMPHOCYTES
 Walker, Jasmine* and Whalen, Margaret; Advisor, Dr. Margaret Whalen. Department of Chemistry

ENGINEERING

P13 EMPOWERING STUDENTS WITH ENGINEERING LITERACY AND SYSTEMATIC PROBLEM SOLVING THROUGH INTERACTIVE AND COST-EFFECTIVE GAMES

Keobounhom Chanthavone* and Shetty, Sachin; Advisor, Dr. Sachin Shetty. Department of Electrical and Computer Engineering

P14 COMMUNICATION WITHIN A MULTI- AGENT SYSTEM

Moore Jr., Gary* and Anderson, Monica; Advisor, Dr. Monica Anderson. Department of Electrical and Computer Engineering

P15 SECURE PHYSICAL LAYER KEY GENERATION IN MIMO NETWORKS

Peter Riad*, Meena Thanu, and Sachin Shetty; Advisor, Dr. Sachin Shetty. Department of Electrical and Computer Engineering

HEALTH, EDUCATION, AND SOCIAL SCIENCES

P16 STUDENT CONSIDERATIONS IN SELECTING AND APPLYING TO GRADUATE SCHOOL Barden, G.*, Hudson, M., Ranson, S., Sipes, H., and Taylor, K.; Advisor, Dr. Iris Johnson-Arnold. Department of Speech Pathology

EXAMINATION INTO THE MICROBIOLOGICAL SAFETY OF IRRIGATION WATER USED BY A LOCAL P17 **SMALL FARMER** Frederick, Alex, Stone, Richard, Chen, Fur-Chi, and Godwin, Sandria; Advisor, Dr. Sandria Godwin. School of Family and Consumer Sciences P18 FOOD SAFETY KNOWLEDGE AND PRACTICES AMONG PREGNANT WOMEN Clayborne, Amber*, Machara, Margaret, and Godwin, Sandria; Advisor, Dr. Sandria Godwin. School of Family and Consumer Sciences P19 PRADER-WILLI SYNDROME AND PHYSICAL THERAPY: A PROPOSED TREATMENT PROTOCOL Christiansen, Shannon*; Cunningham, Jim, Jeffers, Felicia, and Shelide, April; Advisor, Dr. David Lehman. Department of Physical Therapy OBSERVING THE CONDITIONS AND OCCUPANTS OF NASHVILLE AREA PARKS P20 Miller, Traci*; Advisors, Drs. M. Machara and S. Godwin. Department of Family and Consumer Sciences **Poster Presentations Graduate Students** Poster Presentations will be in the Research and Sponsored Programs Building, Lower Level AGRICULTURAL AND CONSUMER SCIENCES **P21** INTERACTIVE GIS OF STATE OWNED BUILDINGS IN TENNESSEE White, S.*, Skelton, T, and Kilbourne, K.; Advisor, Dr. Robert Harrison. School of Agriculture and Consumer Sciences P22 HYDROPONIC PRODUCTION OF HOPS (HUMULUS LUPULUS 'CASCADE') Chad R.*; Advisor: Dr. Roger Sauve. School of Agriculture and Consumer Sciences A SUBSECTOR ANALYSIS OF TENNESSEE AGRICULTURAL PRODUCT EXPORT: GROWTH, PROBLEMS, **P23 AND COUNTERMEASURES** Pasirayi, S.*; Advisor, Dr. Surendra Singh. School of Agriculture and Consumer Sciences **P24** SPATIAL ANALYSIS OF SWITCH GRASS YIELD PRODUCTIVITY IN UNITED STATES Niharika, O.*; Advisor, Dr. Surendra Singh. School of Agriculture and Consumer Sciences ARE CONCENTRATED ANIMAL FEEDLOT OPERATIONS THE MAIN SOURCE OF POLLUTION IN **P25 TENNESSEE RIVERS?** McDermott, E.*; Advisor, Dr. Robert Harrison. School of Agriculture and Consumer Sciences IDENTIFYING SOCIAL FORMS OF THE INVASIVE FIRE ANT: A MOLECULAR APPROACH **P26** Tyus, J.* and Ochieng, S.; Advisor, Dr. Sam Ochieng. School of Agriculture and Consumer Sciences COULD POTASSIUM ION PROVIDE THE NEEDED ABIOTIC RESISTANCE IN PLANT PRODUCTION? **P27** Lewis, S.*; Advisor, Dr. Dharma Pitchay. School of Agriculture and Consumer Sciences **P28** IMPACT OF NITROGEN FORMS AND RATIOS. AND SUBSTRATE PH ON BLUEBERRY ROOT AND

SHOOT DEVELOPMENT

Kennedy, S.* and Lewis, S.; Advisor, Dr. Dharma Pitchay. School of Agriculture and Consumer Sciences

IMPACT OF NITROGEN AND PHOSPHORUS CONCENTRATIONS ON CONTAINER GROWN CRAPE MYRTLE **P29** Lewis, S.* and Garcia, S.; Advisor, Dr. Dharma Pitchay. School of Agriculture and Consumer Sciences

A MOLECULAR MODEL FOR TOLERANCE TO TOXIC METAL IONS IN TOMATO P30 Sangireddy, S. R.* and Zhou, S.; Advisor, Dr. Suping Zhou. School of Agriculture and Consumer Sciences

SURVIVAL OF ENTEROBACTER SAKAZAKI ON FRESH PRODUCE DURING STORAGE AT REFRIGERATOR P31 **TEMPERATURE**

Rotich, E.*, Kilonzo-Nthenge, A., and Thompson, C.; Advisor, Dr. Agnes Kilonzo-Nthenge. School of Family and Consumer Sciences

P32 MARKETING CHANNELS OF GOAT MEAT

Thompson, K.*; Advisor, Dr. Fisseha Tegegne. School of Agriculture and Consumer Sciences

Poster Presentations Graduate Students

Poster Presentations will be in the Research and Sponsored Programs Building, Lower Level

BIOLOGICAL SCIENCES

P33 EFFECT OF P44/42 ACTIVATION ON TBT-INDUCED LOSSES OF GRANZYME B AND PERFORIN PROTEIN LEVELS IN HUMAN NK CELLS

Abraha, Abraham* and Whalen, Margaret; Advisor, Dr. Margaret Whalen. Department of Biological Sciences

- P34 EFFECTS OF ZIRAM ON HUMAN NATURAL KILLER CELLS MAP KINASES AND CYTOLYTIC PROTEINS Taylor, Thyneice R.* and Whalen, Margaret; Advisor, Dr. Margaret Whalen. Departments of Biological Sciences and Chemistry
- P35 RESPONSES OF SOIL RESPIRATION TO ELEVATED CARBON DIOXIDE AND NITROGEN ADDITION IN YOUNG SUBTROPICAL FOREST ECOSYSTEMS IN CHINA

 Deng Q.*, Hui, D., Zhou, G., Zhang, D., and Liu, J.; Advisor, Dr. Dafeng Hui. Department of Biological Sciences
- P36 CHRONIC ETHANOL ALTERS MITOGEN ACTIVATED PROTEIN KINASES IN VASCULAR SMOOTH MUSCLE CELLS Williams, S.*, Mtshali, C., and Gardner-Jones, C.; Advisor, Dr. Benny Washington. Department of Biological Sciences
- P37 TIME COURSE ANALYSIS OF NEUROPILIN IN THE MAMMALIAN BRAIN
 Coleman, Antoinette Y.,* Howard, Christianna A., and McAdory, Brenda S.; Advisor, Dr. Brenda S. McAdory.
 Department of Biological Sciences
- P38 FACTORS CONTRIBUTING TO THE DEVIATION OF RT-QPCR EFFICIENCIES Bohannon-Stewart, A.*; Advisor, Dr. Xiaofei Wang. Department of Biological Sciences
- P39 STRUCTURAL VARIATION OF ZINC FINGER RNA BINDING PROTEIN GENES IN THE GENOME OF CHICKENS Feaster, T.* and Wang, X.; Advisor, Dr. Xiaofei Wang. Department of Biological Sciences
- P40 AN EXPERIMENTAL ANALYSIS OF MAJOR FACTORS CONTRIBUTING TO UNEXPECTED REAL TIME RT-PCR EFFICIENCY
 Bohannon-Stewart, A.*, and Wang, X.; Advisor, Dr. Xiaofei Wang. Department of Biological Sciences
- P41 DEVELOPMENT OF A REPRODUCIBLE METHOD TO GROW AND STUDY DIFFERENTIATION OF MOUSE EMBRYONIC STEM CELLS

 Norwood, C. W., Asfour, James, A., and Asson-Batres, M. A.; Advisor, Dr. Mary Ann Asson-Batres.

 Department of Biological Sciences
- P42 DEVELOPMENT OF A MOUSE EMBRYONIC STEM CELL M MODEL FOR NEUROGENESIS AND LOCALIZATION OF RARA AND RARG IN THESE CELLS

 Buchanan, F.* and Asson-Batres, M. A.; Advisor, Dr. Mary Ann Asson-Batres. Department of Biological Sciences

Buchanan, F. and Asson-Batres, M. A.; Advisor, Dr. Mary Ann Asson-Batres. Department of Biological Sciences

- P43 UTILIZING RECOMBINANT IGY IN THE DEVELOPMENT OF A SURFACE PLASMON RESONANCE BIOSENSOR FOR SALMONELLA TYPHIMURIUM

 Darris, C.*; Advisors, Drs. Samuel Nahashon and Fur-chi Chen. Department of Biological Sciences
- P44 PPEF2 AND ITS RELATIONSHIP WITH MELATONIN SYNTHESIS IN CHICKEN'S PINEAL GLAND IN REGULATING THEIR CIRCADIAN RHYTHM
 Okafor, E.* and Wang, X.; Advisor, Dr. Xiaofei Wang. Department of Biological Sciences
- P45 CYTOTOXIC EXTRACTS OF ETHNOMEDICINAL PLANTS PODOPHYLLUM PELTATUM (MAYAPPLE) AND ECHINACEA ANGUSTIFOLIA
 McDowell, O.*; Advisor, Dr. E. Lewis Myles. Department of Biological Sciences

BUSINESS ADMINISTRATION

P46 POSSIBLE COST AND LABOR SAVINGS OF AN INFORMATION SYSTEMS DEPLOYMENT FOR PROCUREMENT: A TSU USE CASE EXAMPLE.

Adeusi, Debo, A.*; Advisor, Dr. Sharon Thach. Business Administration

CHEMISTRY

- P47 TRIBUTYLTIN CAUSES ACTIVATION OF THE MAP3K, C-RAF, BUT NOT RAS IN HUMAN NATURAL KILLER CELLS Celada, Lindsay* and Whalen, Margaret; Advisor, Dr. Margaret Whalen. Department of Chemistry
- P48 TETRABROMOBISPHENOL A DECREASES CELL SURFACE MARKER EXPRESSION IN HUMAN NATURAL KILLER CELLS

Hurd, Tasia* and Whalen, Margaret; Advisor, Dr. Margaret Whalen. Department of Biological Sciences

P49	MICROWAVE IRRADIATED CROSS COUPLING REACTION OF ALLYLTRIFLUROBORATE AND BENZOYL HALIDE Kwei-Yu L.*, and Alam, S.; Advisor, Dr. Mohammad Al-Masum. Department of Chemistry
P50	SYNTHESIS AND STRUCTURE ACTIVITY RELATIONSHIP OF SOME FLUORINATED ACRIDONE DERIVATIVES AS POTENTIAL BIOLOGICALLY ACTIVE COMPOUNDS Otome, A.*, Okoromoba, E.*, and Okoro, C. O.; Advisor, Dr. Cosmas Okoro. Department of Chemistry
P51	DESIGN AND SYNTHESIS OF FLUORINATED CHROMEN-5(6H)-ONE AS POTENTIAL ANTICANCER AGENTS Mumiye A. O.* and Okoro, C. O.; Advisor, Dr. Cosmas O. Okoro. Department of Chemistry
P52	SYNTHESIS AND ANTICANCER ACTIVITY OF FLUORINATED 6,7-DIHYDRO-1H-INDOL-4(5H)-ONE DERIVATIVES Hadijatu M.* and Okoro, C.; Advisor, Dr. Cosmas Okoro. Department of Chemistry
P53	DIBUTYLTIN ACTIVATES MAP KINASES IN HUMAN NATURAL KILLER CELLS Odman-Ghazi, S.*, Abraha, A., Taylor, T., Isom, E., and Whalen, M.; Advisor Dr. Margaret M. Whalen. Department of Chemistry
P54	SYNTHESIS AND ANTIOXIDANT ACTIVITY OF FLUORINATED ACRIDONE DERIVATIVES Callicutt, Jarvis*; Advisors, Drs Cosmas Okoro, William Boadi, and Otome Okoromoba. Department of Chemistry
P55	TRACE METALS IN PHARMACEUTICAL PREPARATIONS Gray, Kharmen*; Advisor, Dr. Theodore Duello. Department of Chemistry
P56	BETA-CYCLODEXTRIN IN HOST-GUEST INTERACTIONS Juniel, Charla*; Advisor, Dr. Tasneem A. Siddiquee. Department of Chemistry
P57	SYNTHESIS AND CHARACTERIZATION OF POLYSACCHARIDE-STABILIZED NANOPARTICLES Bradley Ashley*; Advisor, Dr. Koen Vercruysse. Department of Chemistry
P58	SYNTHESIS OF GOLD AND SILVER NANOPARTICLES USING POLYSACCHARIDES Robinson, Sherene* and Tyler, L.; Advisor, Dr. Koen Vercruysse. Department of Chemistry
P59	SYNTHESIS OF A DIELS-ALDER ADDUCT FOR HOST-GUEST CHEMISTRY Williams, Destiny*; Advisor, Dr. Tasneem Siddiquee. Department of Chemistry
HEAL	TH, EDUCATION, AND SOCIAL SCIENCES
P60	THE IMPACT OF GENDER ON STANDARDIZED TESTS: A META-ANALYSIS OF EXISTING STUDIES 1987 – 2007 Hendrix, Nicole K.*; Advisor, Dr. Stephen Trotter. Department of Psychology
P61	HEALTH PROMOTION IN OLDER ADULTS USING A TECHNOLOGICAL METHOD Chatman, Mauricia*; Advisor, Dr. Elizabeth Brown. Department of Health Administration and Health Sciences
P62	EXERCISE INTERVENTIONS FOR SMOKING CESSATION: A LITERATURE REVIEW Bonds, Susanne*, Hipps, Amy, and Horton, Kyle; Advisor, Dr. Deborah Edmondson. Department of Physical Therapy
P63	CHRONIC DEEP VEIN THROMBOSIS: THE EFFICACY OF OPEN VERSUS CLOSED CHAIN EXERCISES Buchanan, Faith*, Gahagan, Kelsey, Haley, Lauren, and Parsons, Cristen; Advisor, Dr. Natalie Housel. Department of Physical Therapy
P64	PHYSICAL THERAPY IN THE NEONATAL INTENSIVE CARE UNIT (NICU) Shelide, April* and Buchanan, Faith; Advisor, Dr. Natalie Housel. Department of Physical Therapy
P65	A QUALITATIVE ANALYSIS OF "GETTING INTO GRADUATE SCHOOL" JOURNALS Johnson-Arnold, I., Finger, B.*, Watson, J., Barden, G., Sipes, H., and Taylor, K.; Advisor, Dr. Iris Johnson-Arnold. Department of Speech Pathology
P66	WILL THE USE OF SUPPLEMENTAL CREATINE DECREASE REHABILITATION TIME AMONG YOUNG ADULTS COPING WITH THE EFFECTS OF IMMOBILIZATION RELATED INJURIES? Corn, Matthew*, Kallail, Don, Payne, Darin, Bullock, Chad, and Raynes, Ediberto; Advisor, Dr. Ediberto Raynes. Department of Physical Therapy
P67	DOES PROPHYLACTIC MANAGEMENT OF PREDISPOSING RISK FACTORS OF THE ACL IN ADOLESCENT FEMALE SOCCER ATHLETES INCREASE THE RISK OF FURTHER INJURY OR IMPEDE PERFORMANCE? Anderson, A*, Kizer, K., and Bukoskey, T.; Advisor, Dr. Thomas Bukoskey. Department of Physical Therapy
P68	RELATIONSHIP BETWEEN PROPHYLACTIC MANAGEMENT OF PREDISPOSING RISK FACTORS AND NON CONTACT ACL INJURIES WITH FEMALE ATHLETES: ANALYSIS OF THE EVIDENCE-BASED LITERATURE Graves, M*, Humphreys, R., and Bukoskey, T.; Advisor, Dr. Thomas Bukoskey. Department of Physical Therapy

	TRESENTATION SCHEDULES
P69	PROPHYLACTIC MANAGEMENT OF PREDISPOSING RISK FACTORS AND NON CONTACT ACL INJURIES WITH FEMALE ATHLETES Graves, M. and Humphreys, R.; Advisor, Dr. Thomas Bukoskey. Department of Physical Therapy
P70	DOES MANAGEMENT OF RISK FACTORS TO AN ACL INJURY CREATE FURTHER INJURY OR ALTER
. , 0	PERFORMANCE? Anderson, A.* and Kizer, K; Advisor, Dr. Thomas Bukoskey. Department of Physical Therapy
P71	I AM NOT PART OF THE SIDESHOW: WOMEN AND TATTOOS, PERCEPTIONS OF BODY MODIFICATIONS Sisk, Lisa*; Advisor, Dr. Robin Oatis-Ballew. Department of Psychology
P72	WILL THE USE OF ORTHOTICS PREVENT TIBIAL STRESS FRACTURES IN MARCHING ACTIVITIES? Houchin, L.* and Stewart, T.; Advisor, Dr. Deborah Edmondson. Department of Physical Therapy
P73	PRADER-WILLI SYNDROME: FOUNDATIONAL INFORMATION FOR THE PHYSICAL THERAPIST Cunningham, Jim*, Christiansen, Shannon, Jeffers, Felicia, and Shelide, April; Advisor, Dr. David Lehman. Department of Physical Therapy
P74	PRADER-WILLI SYNDROME AND PHYSICAL THERAPY: A PROPOSED TREATMENT PROTOCOL Christiansen, Shannon*, Cunningham, Jim, Jeffers, Felicia, and Shelide, April; Advisor, Dr. David Lehman. Department of Physical Therapy
P75	RECOMMENDED PHYSICAL THERAPY INTERVENTIONS FOR IMPROVING PARTICIPATION IN CHILDREN WITH DUCHENNE'S MUSCULAR DYSTROPHY Elmore, S., Ochoa*, K., Sabbatini, M., and Strader, R.; Advisor, Dr. David A. Lehman. Department of Physical Therapy
P76	QUESTIONS FOR AN SLP: A SURVEY OF ARTICULATION AND PHONOLOGICAL PRACTICES Johnson-Arnold, I., Gully, S*., Parker, J., Robertson, Q., and Rodriguez, I.; Advisor, Dr. Iris Johnson-Arnold. Department of Speech Pathology
P77	ADULT ATTACHMENT AND HIGH RISK SEXUAL BEHAVIOR Pitts, Alexis*; Advisor, Dr. Marie Hammond. Department of Psychology
P78	FATHER ABSENCE AND SELF-DESTRUCTIVE BEHAVIORS IN AFRICAN-AMERICAN WOMEN Tumbling, Shayla*; Advisor, Dr. Marie S. Hammond. Department of Psychology
P79	COPING WITH VOICES AND STRESS: CORRELATIONS WITH VOICE RELATIONSHIPS Joppich, Heather*; Advisor, Dr. Marie Hammond. Department of Psychology
P80	ATTRIBUTION AND SELF-INJURY AMONG COLLEGE STUDENTS AT A HISTORICALLY BLACK UNIVERSITY/COLLEGE Johnson, Sade*; Advisor, Dr. Guler Boyraz. Department of Psychology
P81	COLLEGE CRISIS: LINK BETWEEN PARENTAL DIVORCE AND A PREDISPOSITION TO DEPRESSION AMONG FEMALE UNDERGRADUATES Blackwood, Suzanne*; Advisor, Dr. Robin Oatis-Balew. Department of Psychology
P82	THE IMPACT OF EMDR TREATMENT ON INDIVIDUAL RESILIENCE: A PILOT STUDY Walton, Maria F.*; Advisor, Dr. Marie Hammond. Department of Psychology
P83	NURTURE: CONSISTENT ALTERNATIVE ENVIRONMENTS AND ITS RELATION TO SELF- ESTEEM IN ADOLESCENTS Elam, Tamara*; Advisor, Dr. James Campbell. Department of Psychology
P84	MEDIA INFLUENCE ON BODY IMAGE DISSATISFACTION Gibbs, Makisha*; Advisor, Dr. Linda Guthrie. Department of Psychology
P85	RACIAL IDENTITY, THE AFROCENTRIC WORLDVIEW, AND DATING PREFERENCES AND BEHAVIORS OF AFRICAN AMERICANS Ocen, Michelle*; Advisor, Dr. Marie Hammond. Department of Psychology
P86	SPIRITUALITY AND COPING WITH GRIEF AND LOSS AMONG AFRICAN AMERICAN COLLEGE STUDENTS Foster, Dana*; Advisor, Dr. Marie Hammond. Department of Psychology
P87	OBESITY AMONG AFRICAN AMERICAN AND LATINO ADOLESCENT GIRLS Smith, Carlisha*; Advisor, Dr. Pamela Hull. Center for Health Research
P88	PARENT AND PEER ATTACHMENT OF COLLEGE STUDENTS: FATHERLESS VERSUS DUAL-PARENT HOMES Narain, Ariane*; Advisor, Dr. Marie Hammond. Department of Psychology
P89	INCREASED INTIMACY SKILLS IN MEN REAP INCREASED RELATIONAL SATISFACTION Chester, Robin*; Advisor, Dr. Robin Oatis-Ballew. Department of Psychology

	PRESENTATION SCHEDULES
P90	TARGETING HEALTH DISPARITIES IMPROVING CHILD AND DRIVER SAFETY Massey, Krystal*; Advisor, Dr. Owen Johnson. Department of Health Sciences
P91	EFFECTS OF STEP-FAMILY AND BLENDED FAMILY ENVIRONMENT UPON BIRTH ORDER AND ACHIEVEMENT Wolf, Jillian*; Advisor, Dr. Marie Hammond. Department of Psychology
P92	CANCER SCREENING UTILIZATION IN COMMUNITY HEALTH CLINICS Sherrill, Angel*, Hull, Pamela, Reece, Michelle, Emerson, Janice, Cain, Van, Schlundt, David, and Levine, Robert; Advisor, Dr. Pamela Hull. Center for Health Research
	ster Presentations ulty and Staff Posters
Poster	Presentations will be in the Research and Sponsored Programs Building, Lower Level
F101	EQUIFINALITY AND UNCERTAINTY IN MODELING SOIL RESPIRATION Hui, Dafeng* and Shen, Weijun. Department of Biological Sciences
F102	COMPARISON OF MANUKA OIL BAITED AND UNBAITED TRAPS FOR THE CAPTURE OF BUPRESTIDS AND CERAMBYCIDS Youssef, N. N.*, Oliver, J. B., and Basham, J. P. School of Agriculture and Consumer Sciences
F103	EVALUATION OF INSECTICIDES, BIOPESTICIDES, AND STRESS TREATMENTS ON TREE ATTACKS BY AMBROSIA BEETLES Oliver, J. B.*, Ranger, C. M., Reding, M. E., Schultz, P. B., Youssef, N. N., and Moyseenko, J. J. School of Agriculture and Consumer Sciences
F104	INCREASING DIVERSITY OF U.S. BLACK AND MINORITY FARM OPERATORS IN THE SOUTH Amenyenu, A.*, Singh, S. P., Tegegne, F., and Ekanem, E. School of Agriculture and Consumer Sciences
F105	COMPARISONS OF MICROBIAL CONTAMINATION AND CLEANING PRACTICES OF HOME KITCHENS IN NASHVILLE, TN Chen, Fur-Chi*, Godwin, Sandria, L., Kilonzo-Nthenge, Agnes, Rotich, Emily, Sheshachala, Bhargavi, and Thompson, Cindy. School of Family and Consumer Sciences
F106	THE INTERNET SHOPPING IN THE CUSTOMIZED APPAREL MARKETING Seo, Jung-Im.* School of Family and Consumer Sciences
F107	EVALUATION OF OPTIMUM FLOOR SPACE REQUIREMENT OF THE PEARL GREY GUINEA FOWL Nahashon, Samuel.* School of Agriculture and Consumer Sciences
F108	PREVALENCE AND ANTIMICROBIAL SUSCEPTIBILITY OF ENTEROBACTERIACEAE ISOLATES ON CONDIMENT JARS AND CONTAINERS IN DOMESTIC REFRIGERATORS Kilonzo-Nthenge, A.*, Rotich, R., Godwin, S., Chen, F., and Thompson, C. School of Family and Consumer Sciences
F109	PEER SERVICE LEARNING: WORLD AIDS DAY PROMOTING HEALTHY BEHAVIORS THROUGH HIV/AIDS EDUCATION Foxx, Terri*, Brown, Elizabeth, and Samuels, A. Dexter. Department of Health Administration and Health Sciences
F110	DRIVERS WITH A CHILD PASSENGER ARE MORE AT RISK FOR INJURY THAN THEIR CHILD PASSENGER DUE TO THE DRIVER NOT WEARING A SEATBELT Foxx, Terri*, Samuels, Dexter A., Brown, Elizabeth, Johnson, Owen, and Massey, Krystal. Department of Health Administration and Health Sciences
F111	USING SERVICE LEARNING TO EDUCATE CONSUMERS ON KEEPING FOOD SAFE DURING AN EMERGENCY Stone, Richard*, Godwin, Sandria, and Coppings, Richard. School of Family and Consumer Sciences
F112	POTENTIAL FOR CROSS CONTAMINATION OF FOODS THROUGH IMPROPER STORAGE IN HOME REFRIGERATORS Godwin, Sandria*, Chen, Fur-chi, and Stone, Richard. School of Family and Consumer Sciences
F113	MYROTHECIUM RORIDUM AS A NEW DISEASE IN GARDEN HYDRANGEA Mmbaga, Margaret T.* and Sauve, Roger J. Department of Plant and Soil Science
F114	LEAF SPOT DISEASE ON ORNAMENTAL FLOWERING CHERRY Mmbaga, Margaret* and Sauve, Roger. Department of Plant and Soil Science

All abstracts can be found at www.tnstate.edu/research

F115



School of Nursing Day

REFORM FOR HEALTHCARE PROFESSIONALS: OVERCOMING OBSTACLES AND MOVING INTO COLLABORATION

Pamela C. Hull, *Ph.D.*, is Associate Director of the Center for Health Research at Tennessee State University. Dr. Hull is a medical sociologist with expertise in health and race and ethnicity; prevention, early detection and management of chronic conditions including obesity, diabetes, and cancer; the impact of community factors on health; access to health care; and program evaluation. Dr. Hull conducts community-based participatory research in collaboration with community partners in the Nashville Hispanic and African American communities. She also collaborates with researchers from Vanderbilt University and Meharry Medical College, including the Cancer Outreach Core of the Meharry-Vanderbilt Cancer Partnership. Some of Dr. Hull's research focuses on developing and evaluating communitybased programs to improve health, while other research projects involve statistical analysis of large databases. Dr. Hull earned a Bachelor's degree in Sociology from Duke University, and a Masters and Ph.D. in Sociology from Vanderbilt University. She has additional background in immigration and Latin American studies, and is fluent in Spanish.



Pamela C. Hull, Ph.D., Speaker

Monday, March 15, 2010

Schedule of Events

8:00 am	Registration and Continental Breakfast
8:30 am	Occasion and Welcome by Dr. Kathy L. Martin, Dean - School of Nursing
8:30 am - 9:15 am	MSN and BSN Poster Presentations
9:20 am - 10:55 am	Concurrent Sessions
11:00 am - 10:55 am	Presentation by Sponsors
11:30 am - 12:00 noon	Luncheon
12:10 pm - 12:40 pm	Keynote Address
	Keynote Speaker - Dr. Pamela C. Hull, Associate Director
	Center for Health Research, Tennessee State University

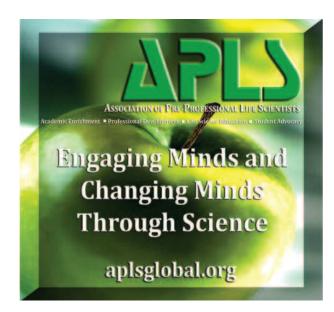


APLS Day

THE ASSOCIATION OF PRE-PROFESSIONAL LIFE SCIENTISTS

APLS is a multi-disciplinary, multi-institutional professional organization, founded at TSU in 2007, focused on providing a more well-rounded college experience to students in the Life Sciences. Through academic enrichment, professional development, life science education and student advocacy, APLS seeks to become an important resource supplement to its members' undergraduate and/or graduate training. As of January 2010, APLS boasts a membership roster of over 150 students, faculty and staff at Tennessee State University, Meharry Medical College, Vanderbilt University and, most recently, Middle Tennessee State University.

The APLS community outreach objective is to engage K-12 students from limited-resource families and communities through STEM-based activities and to provide public education in those areas. During the 2008-2009 academic year, APLS logged over 215 hours of community service and engaged over 1700 K-12 students and parents at local community centers, churches, and schools. The current APLS administration, under the leadership of APLS President Christianna Howard, is poised to do some wonderful things this year, both on campus and in the community. Students and faculty with an interest in the life sciences, technologies or research are encouraged to visit APLS at www.aplsglobal.org or email us at info@aplsglobal.org.



2010 APLS Leadership:

Christianna Howard. President and Chair of Enrichment Activities LaKesha Glover, Vice President and Chair of Service Activities Syrita Murray, Treasurer and Chair of Finance Committee

Rendie McHenry, Secretary

Carl Darris, Co-Executive Director James Tyus, Co-Executive Director Ashley Pellerin, Executive Secretary

Monday, March 15, 2010

Schedule of Events

Research and Sponsored Programs Building

Conference Room 209

1:00 pm - 4:00 pm

APLS Webinar Theater

- Science Careers Away from the Bench
- Effective Laboratory Skills: Managing People, Projects and Money
- Open Innovation and Social Networking

Nanoscience and Biotechnology Core Facility

1:00 pm - 2:00 pm **Genetics Workshop with High School Students:**

Crime Scene Investigation

Conference Room 163

APLS Life Science Challenge and Competition 2:00 pm - 3:30 pm

3:30 pm - 5:00 pm **Panel Discussion with Faculty and Administrators:**

"Success in Science: Beyond the Classroom"

First Floor Lobby

5:00 pm - 6:00 pm **Reception and Professional Mixer**

Floyd-Payne Campus Center

6:00 pm - 9:00 pm **Featured Film**



Engineering, Technology and Computer Science Day

Dr. S. Keith Hargrove was recently appointed the Dean of the College of Engineering, Technology and Computer Science at Tennessee State University (TSU). He previously served as Chairperson of the Department of Industrial, Manufacturing & Information Engineering in the Clarence Mitchell, Jr. School of Engineering at Morgan State University in Baltimore, MD. Dr. Hargrove received his B.S. degree in Mechanical Engineering from TSU in 1985, M.S. degree from the Missouri University of Science & Technology in Rolla, MO. as a National Consortium for Graduate Degrees for Minorities in Engineering and Science, Inc. (GEM) Fellow, and the Ph.D. degree from the University of Iowa as a Committee of Institutional Consortium (CIC) Fellow. Dr. Hargrove was a Boeing Welliver Faculty Fellow (2008), and a Harvard Fellow with the Division of Engineering & Applied Sciences, Harvard University (2005-2006). He served as Assistant to the Dean and Associate Professor of Mechanical



S. Keith Hargrove, Ph.D., Speaker

Engineering at Tuskegee University, and has worked for General Electric, Battelle Pacific Northwest Laboratories, National Institute of Standards and Technology (NIST), Oak Ridge Laboratories, and General Motors. Dr. Hargrove has conducted research projects with Sikorsky Aircraft, Boeing, NASA, and the US Army in systems engineering, design, and manufacturing. He is an Associate Member of the Society of Manufacturing Engineers, Institute of Industrial Engineers, American Society for Engineering Education (ASEE), and the Tennessee Society of Professional Engineers. His current research interests are in virtual and augmented reality, advanced manufacturing systems, systems engineering and management, and minority engineering education. As Dean of the College of Engineering, Technology and Computer Science, he is promoting strategic initiatives that focus on ACCESS (recruitment), AFFORDABILITY (scholarships and research funding), and ATTRITION (innovative curriculum and retention).

Tuesday, March 16, 2010

Schedule of Events

James E. Farre	ll - Fred E.	Westbrook	Building,	118
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11:30 am - 1:00 pm **Luncheon**

Introduction of Speaker, Dr. Mohan Malkini, Associate Dean of Engineering

Presentation by **Dr. S. Keith Hargrove**, speaker

Dean, College of Engineering, Technology and Computer Science

Preparing the Global Engineer for the 21st Century

Holland Hall, Room 323 Robotics Laboratory

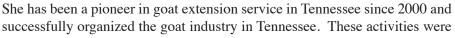
3:00 pm Robotics demonstration for high school students



School of Agriculture and Consumer Sciences Day

A native of Brazil, Dr. Maria Lenira Leite-Browning is a Doctor of Veterinary Medicine and an animal reproduction specialist. She became involved in goat research and extension in 1980 as a research scientist and field veterinarian in northern Brazil. Currently, she is an animal extension scientist at Alabama A&M University.

Dr. Leite-Browning is a goat management consultant with extensive experience in goat production. This experience leads her to conduct seminars, workshops and conferences throughout the United States with the objective of educating producers, extension county agents, industry representatives and veterinarians on several issues of goat farming including nutrition, genetics, husbandry, health, reproductive management and marketing. An author of several scientific articles published in peer review journals, her work has been presented at national and international scientific conferences. Dr. Leite-Browning has a distinguished record of grantsmanship for supporting goat research.





Maria Lenira Leite-Browning, D.V.M., Speaker

instrumental in forming the Tennessee Goat Producers Association. Dr. Leite-Browning was inducted into the "Teachers Hall of Fame" by the International Kiko Goat Association in 2009 because of such accomplishments.

Dr. Leite-Browning earned the Doctor of Veterinary Medicine (DVM) in 1980 from the Universidade Federal da Bahia in Bahia, Brazil and earned the Master of Science degree in theriogenology in 1985 from the Universidade Federal Flunimense in Rio de Janeiro, Brazil.

She is married to Dr. Richard Browning, Jr., a prominent goat research scientist, who initiated, and continues today, the goat research program at Tennessee State University.

Tuesday, March 16, 2010

Schedule of Events

	- Agriculture Information and Technology Center
1:00 p.m.	Occasion by Dr. Carter Catlin, Associate Dean for Research - School of Agriculture and Consumer Sciences
	Welcome by Dr. Chandra Reddy, Dean, Director of Research and Administrator of Extension —
	School of Agriculture and Consumer Sciences
	Introduction of Speaker by Nannette C. Martin, School of Agriculture and Consumer Sciences
	Presentation by Dr. Maria Browning, speaker – Extension Professor, Alabama A&M University
	Veterinary Science: The 21st Century Perspective
1:30 p.m.	The Virtual Learner in Agriculture and Consumer Sciences Presentation
	Jonell Hinsey, School of Agriculture and Consumer Sciences
1:50 p.m. – 2:45 p.m.	Agriculture and Consumer Sciences Research Demonstrations
	Biotechnology and Food Safety



The Center of Academic Excellence in Intelligence Studies (CAEIS) Day

The Center for Academic Excellence in Intelligence Studies (CAEIS) is a student development program through which the U.S. Intelligence Community assists TSU's efforts to develop a diverse pool of analytical leaders and to positively influence student interest in the intelligence profession and service to the nation, in general. The CAEIS facilitates students becoming more culturally aware global citizens, encourages the learning of secondary languages, and most importantly, builds solid U.S. citizen graduates who are capable of making immediate contributions to professional organizations in providing solutions to 21st Century challenges.

Maura Burns, Speaker

The guest speaker for the CAEIS luncheon is Maura Burns, a 22-year veteran with the Central Intelligence Agency (CIA). Her area of focus is on the analysis of foreign weapons programs. Currently, she is an Issue Manager in the Weapons Intelligence, Nonproliferation, and Arms Control Center (WINPAC). She is a 1985 graduate from the University of Kentucky. Ms. Burns will discuss the development of critical thinking skills.

Wednesday, March 17, 2010

Schedule of I	Schedule of Events		
Agricultural Informat	ion and Technology Center		
9:10 a.m 10:10 a.m.	Globalization and Terrorism Workshop		
Farrell-Westbrook Bui	ilding, 118		
10:20 a.m. – 11:20 a.m.	Intelligence Community Career Fair		
11:30 a.m. – 1:00 p.m.	Luncheon		
	Presentation by Maura Burns, Issue Manager, Central Intelligence Agency, "Critical Thinking Skills"		
	Panel Discussion by representatives from Intelligence Community		
1:00 p.m. – 1:20 p.m.	Intelligence Community Career Fair		
Floyd-Payne Center			
1:30 p.m. – 2:15 p.m.	790th AFROTC Detachment Tour		
McCord Hall 204			
2:30 p.m. – 3:20 p.m.	Introduction to Biological Sciences		
	Biological Sciences Laboratory Demonstrations		
Research and Sponso	red Programs, Room 209		
3:30 p.m. – 4:30 p.m.	Globalization and Terrorism Workshop		
Research and Sponso	red Programs Lobby		
4:30 p.m 5:30 p.m.	Scholars Reception		



Celebrate Chemistry Day

Ruth Woodall serves as the director of the Tennessee Scholars program, a rewards and recognitions program started by the Tennessee Chamber of Commerce & Industry in Nashville, Tennessee.

Prior to joining the Tennessee Chamber of Commerce & Industry, Woodall taught chemistry in Tennessee public school systems – Metropolitan-Nashville, Shelby County, and Dyer County. She has led groups of students to study chemistry in Russia and Siberia, and marine biology and zoology in New Zealand and Australia.

Presently, Woodall holds the office of councilor for the Nashville Section of the American Chemical Society (ACS). In her 19 years as an ACS member, she has served as chair of the Nashville Section, Public Relations chair in two local sections, NCW coordinator in two local sections, Government Relations chair; and she has served on the American Chemical Society Committee on Community Activities for 16 years and the Committee on Public Relations and Communications for six years. She is the past chair of the Tennessee Science Teachers Association, chair of the ACS Tennessee Government Affairs committee, a member of Tennessee ACT Policy Council, NSTA Life Members



Ruth Woodall, Speaker

Advisory Committee chair, helped draft the current Tennessee Diploma Path for high school graduation, and is on the board of directors of the Neurological Sciences Foundation to help educate the public about neurological diseases of the brain.

Woodall graduated from Union University in Jackson, Tennessee where she received a degree in chemistry in 1977. She was named *Alumni of the Year* in 2004 from the Chemistry Department. In 1984, Woodall earned a Masters degree in science education from the University of Memphis. She earned another Masters degree in 1984 and has continued to earn graduate hours in chemistry and education since.

In her personal time, Woodall enjoys traveling, golfing, singing, music, swimming, playing with her three nieces and four nephews, and doing chemistry activities.

Thursday, March 18, 2010

Schedule of Events

Alger V. Boswell Buil	
9:00 am - 10:00 am	Tour of Chemistry Department
9:00 am - 12:00 noon	Career Fair
10:00 am - 11:00 am	Chemistry Demonstrations
11:00 am - 12:00 noon	Chemistry Challenge
12:00 noon - 2:30 pm	Student Research Poster Presentations
2:40 pm - 4:00 pm	Introduction of Speaker by Dr. Cosmas Okoro, Chemistry
	presentation by Ruth Woodall, Director of Tennessee Scholars Program, speaker
James E. Farrell - Fred	E. Westbrook Building, 118
5:00 pm	Awards Dinner



Psychology Day

James M. O'Neil, Ph.D. is Professor of Educational Psychology and Family Studies at the University of Connecticut and a licensed psychologist in private practice in South Windsor, Connecticut. In 1975, he received his doctorate from the Department of Counseling and Personnel Services at the University of Maryland.

Dr. O'Neil is one of the founding members of the Society for the Psychological Study of Men and Masculinity (SPSMM), Division 51 of the American Psychological Association. SPSMM named him Researcher of the Year in 1997 for his 20-year research program on men's gender role conflict. He is the author of the Gender Role Conflict Scale, a widely used measure of men's conflict with their gender roles. In 1995, he was awarded Teaching Fellow status by the University of Connecticut for his outstanding excellence and dedication to the university teaching profession.



James M. O'Neil, Ph.D., Speaker

In August 2008, Dr. O'Neil received the Distinguished Professional Service Award from Division 51 of the American Psychological Association for his 25-year research program on men's gender role conflict and his advocacy for teaching of the psychology of men in the United States. His article, "Summarizing 25 years of research on men's gender role conflict using the Gender Role Conflict Scale: New research paradigms and clinical implications" won the SAGE and The Counseling Psychologist Outstanding Contribution Award in 2009. He has advocated professional activism with gender role and social justice issues throughout his 35 years as a counseling psychologist.

Thursday, March 18, 2010

Schedule of Events

James E. Farrell - Fred E. Westbrook Building, 118		
11:30 am	Luncheon Presentation by Dr. James M. O'Neil, speaker	
	Summarizing 25 years of Men's Gender Role Conflict Research:	
	What We Know and Its Implications for Men, Women, and the Psychology of Men	
Research and Sponsor	ed Programs Building, Room 209	
1:00 pm - 2:30 pm	Poster Session (Student Research Poster Presentations)	
2:30 pm - 4:00 pm	Workshop: Forgiveness: An Important but Misunderstood Process that Can	
	Heal the Wounded and the World We Live in	
	Presentation by Dr. James M. O'Neil, speaker	
2:30 pm - 4:00 pm	Panel Discussion: Completing Your Senior Project, Thesis, and Dissertation	
5:45 pm - 7:00 pm	Awards Ceremony	





Friday, March 19, 2010 11:30 a.m. - 1:00 p.m.

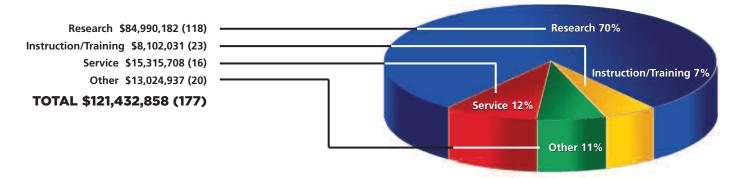
Student Awards Ceremony

James E. Farrell - Fred E. Westbrook Building, 118		
Welcome	Dr. Brenda McAdory, Symposium Co-Chair	
Luncheon		
Presentation of Awards	Dr. Maria Thompson, Vice President for Research and Sponsored Programs	
Acknowledgements and Closing Remarks	Valerie Williams, Symposium Co-Chair	
Adjournment		

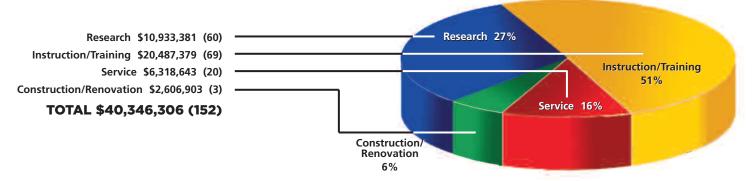


Research and Sponsored Project Awards FY 2009

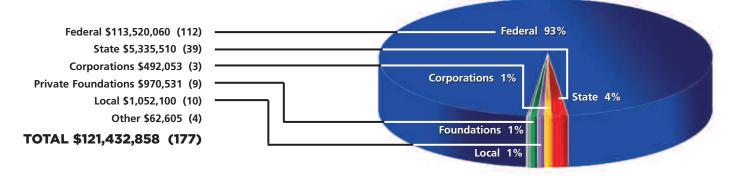
SUBMISSIONS BY PROJECT TYPE



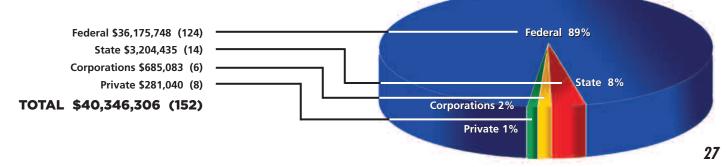
AWARDS BY PROJECT TYPE



SUBMISSIONS BY SOURCE



AWARDS BY SOURCE





Student Awards
RESEARCH SYMPOSIUM 2009

		sentations Poster Presentations
Third Place	P57	Rachel Etherton, Falaknaz Gundi
Second Place	P68	Ashley West
First Place	P67	Leon Tillman
Undergradua	te Stude	ent Poster Presentation - Engineering, Computational & Physical Science
Third Place	P26	Shahrina Alam
Second Place	P32	Murali Krishna Marneni
First Place	P27	Olorupo Charles Agbaje
Graduate Stu		ster Presentation - Engineering, Computational & Physical Sciences
Third Place	P45	Gregory Coates
Third Place	P55	Jinj Zhou
Second Place	P53	Felicia Udoji
First Place	P49	Esther Coline Kibakaya
Undergradua	te Stude	ent Poster Presentation - Life and Molecular Sciences
Third Place	P17	Natasha Hinkson
Third Place	P12	Abraham Abraha
Second Place	P20	Sabah Odman-Ghazi
First Place	P18	Caleb Kersey, Xuan Le
Graduate Stu	dent Po	ster Presentation - Life and Molecular Sciences
Third Place	P42	Josh White, Susan West, McKinley Woodson, Michael Thompson
Second Place	P38	Amber Clayborne
First Place	P40	Michael Davidson
		ent Poster Presentation - Health, Education & Social Sciences
Third Place	P6	Alan Bunger, Dona Davis, Swaina Dhawan, LaNedra Lee
Second Place	P5	Lauren Rudd, Marcus Pearson, Nikki Orazine
First Place	P7	Kyle Cochrane, Lauren Eskew-Rogers, Kiel Huston, Jamette Hickman
Graduate Stu	dent Po	ster Presentation - Health, Education & Social Sciences
Third Place	B5	Olukemi Gbemisola Jolayemi
Second Place	B2	Carlton Cobb
First Place	В3	Warren Dean
Undergradua	te Stude	ent Oral Competition - Engineering and Sciences
Third Place	C3	Christianna Howard
Third Place	C10	Akindejii Ojetola
Second Place	C2	Prashant Bajaj
First Place	C4	James Tyus
Graduate Stu	ident O	ral Competition - Engineering and Sciences
Third Place	A7	Ai Ishihara
Second Place	A8	Jason Peterson
First Place	A9	Kerry Simon
Graduate Stu	dent Or	al Competition - Humanities and Arts
Second Place	A2	Susan West
First Place	A1	Whitney White
Undergradua	te Stude	ent Oral Competition - Health, Education & Social Sciences
Third Place	A4	Adina Gociu, Selina Hill
DECONA HACE	A5	Christan Bishop, Gregg Hamilton, Shelina Heerdink, Raven Ingram
First Place Second Place	A6	Meegan Lambert, Ayile' Arnett

1st Place - \$150

2nd Place - \$75

3rd Place - \$25

28

1st Place - \$250

2nd Place - \$100 3rd Place - \$50



Judges

Dr. Twum Ansah, Meharry Medical College

Dr. Anthony Baucum, Vanderbilt University

Dr. Jacqueline Burgess, Integrity Dental Care

Dr. Sanika Chirwa, Meharry Medical College

Dr. Saudat Fadeyi, Meharry Medical College

Dr. Hugh Fentress, Vanderbilt University

Dr. Robert Holt, Meharry Medical College

Dr. Heinrich Matthies, Vanderbilt University

Dr. Justus Ike, Fisk University

Dr. Mohammed A. Maleque, Meharry Medical College

Dr. Leah Miller, Vanderbilt University

Dr. Marilyn Odom, Belmont University

Aramandla Ramesh, Meharry Medical College

Dr. Jimmy B. Sheats II, Sheats Endodontic Group

Dr. James Farmer, U.S. Geological Survey

Dr. Rosalyn Webb, formerly Vanderbilt University

2010 Research Symposium Committee

Terri Allgood, Center for Academic Excellence in Intelligence Studies

Sarabjit Bhatti, School of Agriculture and Consumer Sciences

Guler Boyraz, Psychology

Mark Brinkley, Center for Academic Excellence in Intelligence Studies

Reginald Cannon, Research and Sponsored Programs

David Danner, Research and Sponsored Programs

Phyllis Danner, Research and Sponsored Programs

Todd Gary, Research and Sponsored Programs

Linda Lewis Goodman, Research and Sponsored Programs

Denisha Griffey, Chemistry

S. Keith Hargrove, Engineering, Technology, and Computer Science

Christianna Howard, APLS

Pamela Hull, Center for Health Research

Michael Ivy, Biological Sciences

Everett Jolley, Admissions

Deborah Long, School of Agriculture and Consumer Sciences

Mohan Malkani, Engineering, Technology, and Computer Science

Nannette Martin, School of Agriculture and Consumer Sciences, (former symposium co-chair)

Brenda McAdory, Biological Sciences (symposium co-chair)

David Miller, Psychology

Yvonne Myles, Biological Sciences

Marilyn Parks, Center of Excellence in Information Systems Engineering and Management

Belinda Patterson, Nursing

Moinuddin Sarkar, Physics and Astronomy

James Tyus, APLS

Verla Vaughan, Nursing

Valerie Williams, Center of Excellence for Learning Sciences (symposium co-chair)

EX-OFFICIO MEMBERS

Maria Thompson, Ph.D., Vice-President, Research and Sponsored Programs

Gloria Johnson, Ph.D., Interim Dean, College of Arts and Sciences

Michael Freeman, Ph.D., Vice-President, Student Affairs

Million Dollar Club Members

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Dr. Satinderpaul Devgan, College of Engineering, Technology, and Computer Science

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Dr. Chinyere Onwubiko, College of Engineering, Technology, and Computer Science

Dr. Edward L. Risby, Graduate School and Office of Sponsored Research

Dr. Decatur B. Rogers, College of Engineering, Technology, and Computer Science

Dr. Lonnie Sharpe, Massie Chair of Excellence in Environmental Engineering

Dr. Amir Shirkhodaie, College of Engineering, Technology, and Computer Science

Dr. Marcus W. Shute, Research and Sponsored Programs

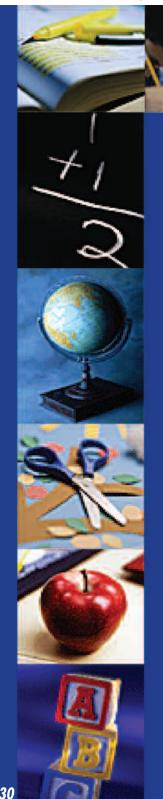
Dr. Willard Smith, Center for Excellence in Information Systems Engineering and Management

Congratulations to the 21 members of the Million Dollar Club. This is an exclusive club populated by scholars who, due to their commitment to excellence, are on the cutting edge in research, teaching, and service. The steady increase in sponsored research and program support is a direct result of the million dollar projects awarded to these 21 distinguished scientists, engineers, and educators. Their efforts, although measurable in dollars, are immeasurable in terms of the positive impact their work has had on the University's ability to achieve its mission.



Center of Excellence for Learning Sciences

Building Capacities to Strengthen Communities Through Education



Celebrating Leadership in Learning Sciences, Research, and Service

PROGRAMS AND PROJECTS

Head Start Career Advancement Partnership Program (HS-CAPP)
Davidson County Child Care Resource and Referral (CCR&R)
Tennessee Early Childhood Training Alliance (TECTA)
Tennessee State University-TN CAREs Early Head Start
Social Services Competency Based Training (SSCBT)

RESEARCH INITIATIVES

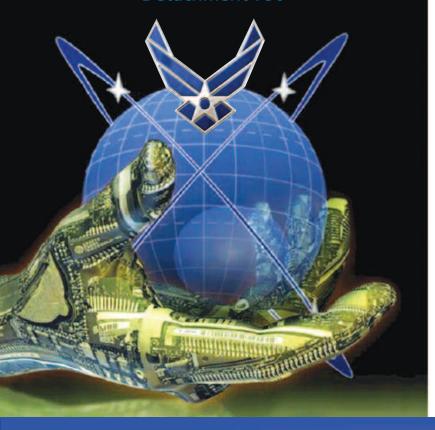
STEM Education
Teaching and Learning
Early Intervention Models
Student Learning Measurement
Early Childhood Educator Professional Development
P-16 Instructor and Administrator Professional Development
Birth to Three Curriculum, Program and Professional Development

For more information, please contact:

Tennessee State University
Center of Excellence for Learning Sciences
3500 John A. Merritt Blvd., Box 9500
Nashville, TN 37209
Main Office: 615.277.1651
Fax: 615.277.1654
www.tnstate.edu/learningsciences

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School of Agriculture and Consumer Sciences Transforming the Agricultural Environment and Changing Lives

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The Research and Education Center at Nashville Research and Education Center at Cheatham County The Otis L. Floyd Nursery Research Center at McMinnville



We perform public service throughout the State of Tennessee in areas of food, agriculture, the environment and consumer sciences.

Academic Degree Offerings



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We offer the Bachelor of Science degree in Agricultural Sciences with concentrations in:

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- Animal Science/Pre-Veterinary Medicine
- Food Technology

- Agricultural Education
- Applied Geospatial Information Systems
- Plant and Soil Science



We offer the Master of Science degree in Agricultural Sciences with options in:

- Agribusiness
- Animal Science

- Agricultural Education
- Plant Science



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Ph.D. in Agricultural Biotechnology through the Biological Sciences Department



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- Child Development and Family Relations
- Fashion Merchandising
- Food Service Management
- Design
- Food and Nutrition
- Family and Consumer Sciences Education



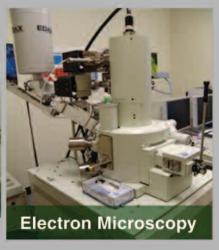
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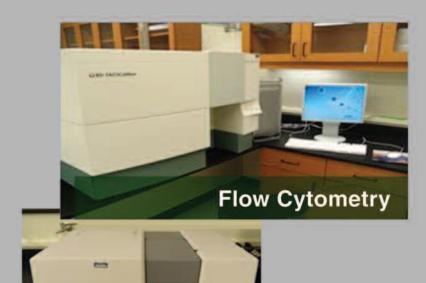
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- Flow Cytometry
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For more information contact:

Susan Sutton Laboratory Director RSP Building, Room 226 615-963-2537

sverbernesutto@tnstate.edu



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Spectrophotometry



THE CENTER FOR ACADEMIC EXCELLENCE IN INTELLIGENCE STUDIES (CAEIS)

Salutes

the 32nd Annual University-Wide Research Symposium

The Center for Academic Excellence in Intelligence Studies (CAEIS) is the program through which the U.S. Intelligence Community assists Tennessee State University's efforts to develop a diverse pool of analytical leaders; to positively influence student interest in the intelligence profession and service to the nation in general; to facilitate students to become more culturally aware citizens; to encourage the learning of a secondary language; and most importantly, to build solid U.S. citizen graduates who are capable of serving the nation in any capacity.



THE SCHOLAR'S EXPERIENCE AT TENNESSEE STATE UNIVERSITY (TSU)

The Scholar in U experience engages students more deeply in their learning and contributes to their intellectual, professional, and personal growth in unique ways. The undergraduate student is challenged to include the scholarly experiences - leadership, service learning, research, globalization, and pre-professional organizations - into their degree programs. Students develop competence in the principles of undergraduate learning to include, core communication and quantitative skills, analysis, critical thinking, integration and application of knowledge. Accountability, morals, and ethics are stressed through curricular and co-curricular activities.

The Scholar in U experience enhances the teaching and learning process that occurs during formal class work. These experiences build on TSU's long tradition and commitment to "Think, Work, and Serve." The Scholar in U is a virtuous cycle of value creation for the student. Each module incorporates qualified experiences, integration of knowledge, reflection, and assessment and will be documented on the student's records. The student's undergraduate experiences include continuous intellectual growth; and they graduate with greater preparation to face global challenges.

The Scholar in U experience is distinctive because it intentionally uses experiential learning to prepare students for graduate school, careers, and citizenship. It provides skills, knowledge, and experiences that are highly prized by employers and establishes the foundation for future leaders.









MISSION:

The mission of the College of Business is to educate future business professionals through innovative teaching and applied global economy, complemented with outreach services directed toward enhancing entrepreneurship and economic development.

Undergraduate Program - BBA

The College of Business offers Bachelor of Business Administration (BBA) programs to undergraduates in:

- Accounting
- Business Administration
- Business Information Systems
- Economics and Finance

GRADUATE PROGRAM - MBA

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