VISION & MISSION STATEMENTS

FLORIDA A&M UNIVERSITY

Vision Statement
Florida Agricultural and Mechanical University will provide the citizens of Florida, the nation, and the world with inspirational teaching, relevant research, and meaningful service by offering opportunities to enhance humankind.

Mission Statement
The mission of Florida Agricultural and Mechanical University (FAMU), as an 1890 land-grant institution, is to provide an enlightened and enriched academic, intellectual, moral, cultural, ethical, technological and student-centered environment, conducive to the development of highly qualified individuals who are prepared and capable of serving as leaders and contributors in our ever-evolving society. The University seeks and supports a faculty and staff of distinction dedicated to providing outstanding academic preparation at the undergraduate, graduate, doctoral and professional school levels, with a particular emphasis on integrity and ethical conduct. FAMU is committed to inspirational teaching, exemplary research and meaningful public and community service through creative partnerships at the local, state, national and global levels. The University is also committed to the resolution of complex issues that will enhance humankind.

While the University continues its historic mission of educating African Americans, persons of all races, ethnic origins and nationalities are welcomed and encouraged to remain life-long members of the university community. The University, through its diverse faculty and staff, provides a caring, nurturing, collegial and respectful environment.

Florida Agricultural and Mechanical University holds the following values essential to the achievement of the University’s mission: Scholarship, Excellence, Openness, Fiscal Responsibility, Accountability, Collaboration, Diversity, Service, Fairness, Courage, Integrity/Ethics, Respect, Collegiality, Freedom.

DIVISION OF RESEARCH

Vision Statement
Florida A&M University will become a nationally recognized research institution with an efficient infrastructure that supports the administration of research activities that foster relevant research, intellectual discovery, creative problem solving and the dissemination of knowledge.

Mission Statement
Florida A&M University is committed to inspirational teaching and exemplary research through creative partnerships at the local, state, national and global levels. The Division of Research seeks to:

- support the economic development agenda of the state and region;
- offer superior support services to faculty, staff and students to pursue their research endeavors;
- encourage collaboration and interdisciplinary research activities on campus and externally;
- promote excellence within the academic programs and support areas;
- establish national and international partnerships in research;
- effectively protect, manage and market intellectual property; and
- ensure the highest level of fiscal responsibility in grants management.

FAMU is an Equal Opportunity/Equal Access University.
www.famu.edu
TABLE OF CONTENTS

FEATURES

Letter From President  2
Letter From Provost  3
Letter From Vice President of Research  4
Brite-Idea Camp  5
Physicists Make Discovery  6
FAMU Launches New Program  8
Farmer to Farmer Program  9
FAMU Grape Harvest Festival  12
CIS Department Receives Grant  14
Center For Astrophysics  15
Retreat At Wakulla Springs  16
Research Funding  17
Contact Us  20

2008 Brite-Idea Invention Camp showcases innovative ideas to improve society
FAMU physicists discover nanoscale turbulence
FAMU launches veterinary technology certification program
Farmer to Farmer program impact made from U.S. AID-FAMU-S.A, project with South African land Redistribution for Agricultural Development (LRAD)
FAMU Grape Harvest Festival attracts support from Florida wine industry
FAMU CIS Department receives $552,000 grant from National Science Foundation
FAMU Center for Astrophysics extends the Rattler trademark on global research
Division of Research holds Retreat at Wakulla Springs Lodge: Focus on Customer Service

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LETTER FROM PRESIDENT

(from left to right) President James H. Ammons, and Congressman Allen Boyd
Greetings:

It is a privilege to greet you in the Florida A&M University (FAMU) 2008 Annual Report on Research. Throughout this report you will find highlights on advances the Division of Research has made over the past year.

As we mark a new era in FAMU's illustrious history, please remember the university's future accomplishments will be a direct result of the actions made today. Only with excellent research and practitioners can we provide the high quality services expected of us as a respected and well recognized institution of higher learning. With research funding currently exceeding $54 million, FAMU continues to seek and earn awards from reputable national agencies. A few of these major funding sources include the National Oceanic and Atmospheric Administration, the National Science Foundation and the National Institutes of Health.

Thank you for taking the time to read this message and annual report. May the information provided within these pages serve as an inspiration toward a future of great promise for Florida A&M University.

Sincerely,

James H. Ammons
President
Greetings:

On behalf of the Division of Academic Affairs, I would like to congratulate the Division of Research (DoR) on your 2008 Annual Report on Research. This edition highlights the primary purpose of the DoR in supporting the University's research mission and the programs that help to sustain it.

As it shares an example of the type of work that is needed to meet our educational challenge of improving the teaching and learning environment of the university, it also models a framework for moving toward an even more effective and supportive educational environment, fostered by research endeavors and accomplishments.

The faculty is the foundation of this great institution and I commend each of you for demonstrating excellence in scholarship and research. As we implement our plans for the coming year, I know that each of you, and others, will continue your commitment to make Florida A&M University the best that it can be.

We acknowledge that the DoR assists faculty members, staff and students in their research endeavors, encourages collaboration and interdisciplinary activities across campus and externally, and promotes excellence within our academic programs and supporting areas.

Finally, we’re thankful the DoR also plays an important role in the University's relationships with federal, state and local agencies, corporations, and foundations. You have my best wishes for continual success.

Sincerely,

Cynthia Hughes Harris, Ph.D.
Provost and Vice President for Academic Affairs
Greetings:

This edition of the Annual Report on Research highlights some of the significant accomplishments of Florida A&M University's research community during 2008. It is deliberate that we cite these accomplishments on the behalf of a community simply because of the critical roles played by every internal division in the University and the support of a broad array of external stakeholders. These unified efforts have moved us even closer to realizing the University's vision to "become a nationally recognized research institution with an efficient infrastructure that supports the administration of research activities that foster relevant research, intellectual discovery, creative problem solving and the dissemination of knowledge."

The growth in the number of proposals submitted by faculty and staff, and the impressive number of awards made to various areas within the University by federal, state, and private entities reflect the ingenuity, creativity and productivity of our faculty, staff and students and the confidence held in our ability to provide stewardship and accountability of the financial resources entrusted to our care. Our faculty and students are using these resources to find new discoveries in science and engineering, develop more effective models for teaching and learning, improve public outreach and decision making and stimulate economic development in urban and rural communities. These achievements are resulting in local and global outcomes.

As you view this Annual Report on Research, hopefully it will inspire you to join the Florida A&M University research community such that in future years your work is highlighted herein. Thank you, in advance, for visiting www.famu.edu/research, where you can learn more about just how the Florida A&M University Division of Research is ever committed to research, scholarship, economic development and stewardship. With you as an active member of our community we may soon need to expand the scope of our present vision.

Sincerely,

Larry Robinson, Ph.D.
Professor and Vice President for Research

FAMU IS AN EQUAL OPPORTUNITY/EQUAL ACCESS UNIVERSITY
**2008 BRITE-IDEA INVENTION CAMP SHOWCASES INNOVATIVE IDEAS TO IMPROVE SOCIETY**

BRITE (Bridging Research and Innovative Technologies with Entrepreneurship) Idea Invention Camp was held on the campus of FAMU during the week of June 9 - 13, 2008. The Office of Technology Transfer, Licensing and Commercialization, under the direction of Rose Glee, Ph.D., played host to 27 middle and high school participants from Tallahassee, FL and from Monroe, LA.

A culminating showcase was held on Saturday, June 14, 2008 in the FAMU School of Business and Industry. Inventions, other developments and educational activities to improve society were featured, along with the final round of the BRITE-DEA Challenge Game (a spinoff of “This is JEOPARDY!”). Judges deliberating for this competition were: FAMU SBI faculty member and eminent scholar, the late Colin O. Benjamin, Ph.D.; local businessman and Rotary Club member, Kenneth Press; Leon County Research and Development Authority of Innovation Park representative, Linda Nicholson; and Officer Argatha Gilmore of the Tallahassee Police Department.

<table>
<thead>
<tr>
<th>PARTICIPANT'S NAME</th>
<th>AGE</th>
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Physicists Make Discovery

FAMU PHYSICISTS “DISCOVER” NANO SCALE TURBULENCE
“Breaks the commonly accepted view of chaotic-like motions”

FAMU’s distinguished professor of science and engineering, Joseph A. Johnson, III, Ph.D., along with Stephen Roberson, Ph.D. (FAMU doctorate, Fall 2006), and Charlemagne Akpovo, Ph.D. of FAMU have found first evidence of turbulent behavior in ionized gases which have a lifetime of less than 100 nanoseconds. (A nanosecond is one thousandth of one millisecond of one second.) Laser induced plasmas in Nitrogen, Argon, Xenon, Neon and Krypton were studied using measuring speeds at rates in excess of 10 x 10^9 per second. Turbulent flow fluctuations which influence mixing on such short time scales will cause dramatic changes in applications such as ion implantation in semiconductors. Such fluctuations will drastically change the reaction dynamics in the synthesis of new nano-materials. Furthermore, computations and modeling for the molecular dynamics in nanotechnology must now include new physics driven by turbulence in order to correctly predict the manufacturing processes. Their paper on this research was

Winners of the BRITE-IDEA Challenge Game comprised a group named: Boogiebots whose members were: Theria Bailey, Alonzo Colquitt, Brianna Hampton, Christian-Javard Moore, and Brianna Rosier. For their week-long efforts, they each received a trademark Robosapien (spider) robot. According to program assistant, Mr. Emerson Naylor, certificates and awards were also presented in the categories of: Most Productivity—Amanda Campbell, Brianna Rosier, Alison Huang, and Allen Galston, who each received a CD player. Each camp participant received a Certificate of Participation.

The actual Showcase Competition was divided into the areas of: Best Technology, Best Profit Potential and Best Commercial. Gift bags with trinkets and other in-kind donations from local sponsors and supporters were distributed. Team B-I-5 (BRITE-IDEA-5) took top honors in Best Technology, with members: Tolulope Agboola, Kyra Milton, Cabraya Roberts, Marcus Clark and Gregory Hall. In the Best Profit category, G.I.R.L.S. (Great Inventors, Researching Life Strategies) were deemed the best. Amanda Campbell, Brandi Durkins, Jayla Pugh, Trionne Lane and Ariah Wooden. Getting it to the marketplace is what it’s all about, and in the area of Best Commercial, CS14 (Combined Science Intelligence 4) took it there. Harold Chapman, Naliyah Gilbert, Joni Lindsey and Brianna Reed. Like these young entrepreneurs/inventors, we should all be so challenged to: “Innovate, change the world!”

For more information on the FAMU Division of Research’s Office of Technology Transfer & Commercialization, as well as the summer invention camp, please call 850.412.7732.
accepted for publication in a 2008 issue of the Journal of Applied Physics published by the American Institute of Physics.

The practical relevance of this discovery is unparalleled, according to lead scientist, Johnson, "This is new physics for new technologies. As detailed in a December 2007 Scientific American Reports, Special Edition on Nanotechnology, the control of molecules is changing the world. Nanotechnology broadly applies to control of materials and components only a few billionths of a meter in size. It has begun with skin lotions and will include advances in biotechnology and electronics, and a merging of the two. Consider, for example building blocks called bi-atomic acids which chemists string together into protein-like structures; applications include medicines, enzymes for catalyzing reactions, sensors, nanoscale valves, and computer storage devices."

Johnson elaborated on the practicality of this research as it relates to FAMU's success rate in graduating seven (7) African American doctorates between 2006 and 2007. "Researchers are using natural molecular machines to process information. Nanoscience advances are also pushing traditional electronics in new directions as well. Possible applications encompass sensors, solar cells, electronic paper and bendable touch screens. Further, plasmons, resulting from squeezing optical signals through miniscule wires, could provide plasmonic circuits which can improve the resolution of microscopes, the efficiency of light emitting diodes, and the sensitivity of detectors. Indeed, such materials could alter the electromagnetic field around an object to such an extent that it would become invisible. The nanoregime offers enormous promise indeed. The FAMU discovery will influence the search for new fundamental physics to explain these effects and the evolution of flow modeling and simulations for nanotechnology manufacturing processes." Johnson is now a National Research Council Fellow at the Army Research Laboratory in Aberdeen, MD. Akpovo is now a Research Staff Physicist at CePaST in the FAMU Laser Remote Sensing Laboratory.

According to Johnson, whose research focuses on turbulence and non-equilibrium statistical mechanics, "This research project on nanoscale turbulence is a part of a comprehensive program of studies on the physics of turbulence in the FAMU Laboratory for Modern Fluid Physics at CePaST. We see new exciting opportunities here at FAMU in what is now called mesoscale physics."
Roberson said in a phone interview, “These results break
the commonly accepted view of turbulence in specific time
frames—different from what most books are saying. The
evidence is conclusive and dispels previous assumptions.”
Akpovo adds, “New insights on turbulence can change
approaches to issues in cosmology as well as a broad range
of technologies ranging from mixing in combustion systems
to remote sensing for hazard avoidance. Stay tuned!”

CePoST activities are aimed at producing new technology
from new science through theoretical, experimental, and
computational plasma physics and photonics so as to increase
national security, support the development of alternative
sources of energy, and to help provide new advanced materi-
als all in a manner which enlarges the nation’s scientific
workforce. This is achieved through a broad spectrum of
research activities in physics and chemistry including research
on remote sensing; fusion; advanced materials; high
temperature plasma physics; laboratory astrophysics;
advanced algorithms, and fundamental atomic and mole-
cular science in support of plasma and laser physics. CePoST
involves roughly 40 participants including faculty members,
graduate and undergraduate students along with other
scientific and support staff. For more information, please
contact Joseph Johnson at 850.561.2471 or
joseph.johnson@famu.edu.

FAMU LAUNCHES VETERINARY
TECHNOLOGY CERTIFICATION
PROGRAM

FAMU now provides a unique educational experience to
students through a new Veterinary Technology Program that
was implemented in the fall semester of 2008. The program
is the only state supported program in northwest Florida.
Implemented through the College of Engineering Sciences,
Technology and Agriculture (CESTA), this academic program
will be an additional animal science option under the agricul-
tural sciences degree track. A major goal of the program is
to help reduce the shortage of professionals in this career
path. Current data reveal that there are 7,924 practicing
veterinarians in Florida and only 700 certified technicians.
Increasing this number statewide will positively impact the
nation’s efforts to significantly improve control of animal-borne
disease, herd health, food safety, international health and
and homeland security.

The Veterinary Technology Certification Program at FAMU
is designed to offer students an integrated curriculum that
prepares them to become certified technicians practitioners
who are qualified to work cooperatively with federal, state,
and private veterinarians, as well as other public and private
animal health officials. A veterinary technologist/technician is
an integral member of the veterinary health care work coop-
eratively with federal, state, and private veterinarians, as
well as other public and private animal health officials. A
veterinary technologist/technician is an integral member of
the veterinary health care team who has been educated in
the care and handling of animals, the basic principles of
normal and abnormal life processes, and in routine labora-
tory and clinical procedures. All veterinary technologists/
technicians work under the supervision of a licensed veteri-
narian.

Graduates will earn a baccalaureate and can qualify to
advance their education towards earning a professional
degree in veterinary medicine or a graduate degree in other
related areas. A state-of-the-art animal health facility and
laboratory will be erected at the FAMU Research and Extens-
on Farm to support the program. The farm is located in
Quincy, (Gadsden County) Florida.

For more details about the program, please contact the
following: Lee Anderson, Ph.D., Program Leader, FAMU
Animal Science Program; Telephone – (850) 599-3383;
Email: Lee.Anderson@famu.edu.
Ray Mobley, DVM, Extension Veterinarian & Animal Science
Faculty, (850) 412-2522, Ray.Mobley@famu.edu;
Thomas Peterson, DVM, Extension Veterinarian & Animal
Science Faculty, (850) 412-5117, Email:
Thomas.Peterson@famu.edu.
U. S. Agency for International Development and FAMU implement at Western Cape, South Africa

FARMER TO FARMER PROGRAM IMPACT MADE FROM U.S. AID-FAMU-S.A. PROJECT with SOUTH AFRICAN LAND REDISTRIBUTION for AGRICULTURAL DEVELOPMENT (LRAD)

Stellenbosch, South Africa - Clearly, change is a constant occurrence of life and the United States Agency for International Development-Florida Agricultural and Mechanical University-South Africa (USAID-FAMU-SA) is committed to and involved with that reality. The South African Land Redistribution for Agricultural Development (LRAD) is just one such aberration that has become actuality for some of the residents of the Western Cape of South Africa. This is due in large part to a grant funded by the USAID through FAMU's Center for International Agricultural Trade, Development Research and Training (CIATDRT) Office of International Agriculture, where Director Harriet A. Paul is the principal investigator and project director.

From the panoramic view of the Cape Town city bowl of the waterfront to Table Mountain, the mother city or the Tavern of the Seas lives up to its motto of: Spes Bona (Latin for “Good Hope.”). The NEW South Africa has a vision of hope and prosperity for all of its citizens. Looking into a bright future through an open window of opportunity, the USAID-FAMU-SA Farmer to Farmer (FTF) Program is striving to enhance entrepreneurship and economic empowerment through capacity building. The BEE (Black Economic Empowerment) initiative has indeed been instrumental in allowing the farmers/producers who are working the land to see their benefits increase as they actively share in the full, hands-on experience as a shareholder through South Africa’s LRAD. Diverse and related agricultural projects are established in five (5) venues of South Africa: Hands on Fish Farmers Co. (Department of Genetics, University of Stellenbosch, SA); Reach for Gold/Hex Rivier (yes, Rivier) Valley (home of the Simonsig Vineyards); Wupperthal Rodals (Tea Cooperative); Wupperthal, SA; Fair Packers Limited Factory (tea distributors), Stellenbosch, SA; and Rennie Farms (Growers and Packers of Quality Vegetables), Paarl, SA. It was an humbling, life-changing experience to interface with all these members of humanity, new-found friends of many hues—friends for life, about 10,000 miles away, just across the Atlantic Ocean—truly amazing! We all have something in common—economic empowerment and self-sufficiency with dignity, strength training and sustainability, through research.

FAMU, an historically black college/university believes in the importance of serving an underrepresented and traditionally disenfranchised population globally. Known as Florida's opportunity university, FAMU has worked in the developing world for more than 35 years to improve the quality of life of underserved citizens. Through funding from the USAID, FAMU has taken on a new agricultural development program in South Africa focused on building the

“Nothing breeds success like success; nothing excels like qualified competence which yields a quiet assurance of productivity!”
necessary skills to promote entrepreneurship and to build sustainability among previously disadvantaged groups. FAMU was founded on October 3, 1887, as the State Normal College for Colored Students and began classes with 15 students and two instructors. Today, FAMU is part of the State University System of Florida and has an enrollment of around 12,000 students.

“To strive—to seek, to find, and to never yield!”

A four-year, public, co-educational institution, FAMU is fully accredited by the Southern Association of Colleges and Schools (SACS). The main campus is comprised of 422 acres located on the highest of seven hills in Tallahassee, the capital of Florida. FAMU offers 63 bachelor’s degrees in 94 majors/tracks, and 37 master’s degrees with 50 majors/tracks and one specialist degree program. The university has 13 schools and colleges and 1 institute. FAMU offers three professional degrees: the J.D., Pharm.D., and the doctor of physical therapy. FAMU has 11 doctoral degree programs including ten PhD degrees and one Doctor of Public Health (IDPH) degree. Please visit www.famu.edu. Truly, there are many success stories that marry South Africa’s LRAD and the USAID-FAMU-SA initiative.

Conquering the challenge of people’s false expectations to experience overnight success—overcoming any and all obstacles with opportunities—turning stumbling blocks into stepping stones are where commitment and involvement merge in these processes. Humanity has been underdeveloped long enough universally, and there is none like one who’s had enough disparity and is ready, willing and able to be about progress through process, and then promotion to facilitate a difference that lasts. One’s mindset must be changed and willing to change, in order to accomplish what lies ahead and beyond the majestic mountain ranges of South Africa and her neighboring countries, and the world at large.

Forward thinking and moving swiftly—always, is the apparent and necessary mantra as South Africa’s LRAD and USAID-FAMU-SA move onward and upward! Yes, we can peacefully co-exist—there’s more than enough to go around, if we but will give peace a real chance, with anticipation and admiration. Let’s watch what happens just on the horizon. Stay encouraged and encouraging: do it now!
FAMU GRAPE HARVEST FESTIVAL ATTRACTS SUPPORT FROM FLORIDA WINE INDUSTRY

The FAMU Center for Viticulture and Small Fruit Research and the USDA/ARS/CMAVE Center for Biological Control extended a special welcome to families throughout the Tallahassee community and surrounding counties to enjoy a day of flavorful activities at their Annual Grape Harvest Festival on Saturday, August 23, 2008, from 7:00 a.m. to 4:00 p.m. The festival was held at 6505 Mahan Drive (Highway 90 East), Tallahassee, Florida.

The Grape Harvest Festival is sponsored annually to promote community spirit and to increase public awareness of the significant research initiatives and outreach efforts of the research centers, which are components of the FAMU College of Engineering Sciences, Technology and Agriculture (CESTA).

Highlights of the festival were the large variety of muscadine grapes and value-added products such as juices, jellies, jams, that are developed by the expert hands of FAMU scientists. The festival schedule also included two home wine-making demonstrations for wine enthusiasts. Adult attendees (only) enjoyed a sampling of selected Florida-grown and processed wines, compliments of the Florida Winery Industry. There are 17 wineries in the state of Florida.

A variety of other family-oriented activities were included on the schedule of events including an invigorating Vineyard Run/Walk; vineyard tours; trailer rides; muscadine grape and juice tasting; grape throwing and hula-hoop competitions; and the newest attraction -- hot air balloon rides. Children 12 and under were also able to enjoy a variety of fun games and competitive activities. Health screenings for high blood pressure and diabetes were available as well as other educational exhibits and displays. The high point of the festival is always the very popular CELA Celebrity Grape Stomping contest.

"The Tallahassee and surrounding communities are always encouraged to come out and enjoy the event, which historically has been both educational and fun," said Bobby R. Phillips Ph.D., organizing chairperson. "The Grape Harvest Festival also promotes the Florida grape and wine industry that has shown amazing growth during the last decade. We want the public to know that the FAMU viticulture and small fruit research programs are among the best in the nation."

"The Tallahassee and surrounding communities are always encouraged to come out to the event."

For more on the Festival or the Center, please contact:

Bobby Phillips, Ph.D. at (850) 599-8685 or bobby@phillips.net;

Angela Harper at (850) 599-3996 or angela.harper@famu.edu;

Stephen Leong, Ph.D. Center Director at (850) 412-5188 or stephen.leong@famu.edu.

For more on this story, please contact Marian B. Gibbons, Director, CELA Communications at 850-561-2094 or marian.gibbons@famu.edu.
Enjoying a long, productive life?

Researchers at Florida A&M University (FAMU) are working toward enhancing the quality of life. **Nazarius S. Lamango**, Ph.D., an associate professor of medicinal chemistry in the College of Pharmacy and Pharmaceutical Sciences at FAMU synthesizes compounds that modulate the biochemical pathway to the brain that is negatively affected by Parkinson's disease. In Dr. Lamango's experimental model, tremors and other effects of the disease were shown to be blocked.

These experiments and outcomes are directly resulting from a FAMU patent filed by Dr. Lamango and **Clivel G. Charlton**, Ph.D. U.S. Patent #6,372,793: “Use of Isopropyl Compounds and Their Derivatives as Anti-Parkinson’s Disease Drugs (Method for Treatment of a Neurological Disease Characterized by Impaired Neuromodulator Function).”
The latest data show that out of all U.S. entering freshmen declaring a major in Computer Science, African-American women made up only 3.3%. The fact is that women are not choosing technology, and this is a dangerous predicament. When you couple that with the fact that it is estimated that 75% of all jobs by the year 2020 will require a technology background, it becomes a crisis call.”

Women who apply to AAWCS will be accepted based on financial need, and will be awarded a scholarship of between $3,000 and $5,000 per semester. In addition to the funding, the women will participate in CIS departmental clubs and organizations, such as the Association for Computing Machinery (ACM) club, the National Society of Black Engineers (NSBE), and the CIS Mentoring Organization (CISMO). AAWCS scholars will also be involved in other STEM programs, such as the Florida/Georgia Louis Stokes Alliance for Minority Participation (FGSAMP) scholarship program, and the Students & Technology in Academia, Research and Service (STARS) Alliance, both NSF-funded programs already at work at FAMU.

An added benefit to the students is the conference participation, where selected AAWCS scholars will be chosen to attend two national conferences (paid for by the grant) each year, such as the Grace Hopper Celebration of Women in Computing, and the National Conference of Women in Information Technology (NCWIT).

AAWCS, the brainchild of Jason T. Black Ph.D., Assistant Professor in CIS, and Edward L. Jones Ph.D. Chair of the CIS program, is seeking to directly address the dismal number of minority women, particularly African-American women, that pursue degrees in CS or IT. “The numbers are staggering,” said Black, who is also the Principal Investigator for the program.
"It is our desire to expose these young women to other African-American women professionals who are making great strides, in the efforts to build relationships, establish partnerships, and provide role-models that show them that they, too, can make it in technology." The conferences often occur internationally, which will only serve to further their exposure and heighten their excitement toward the field. Black added.

The AAWCS program began operation on July 1, 2008, and will run until June 30, 2012. Applications for the program can be requested by contacting: Jason T. Black Ph.D. at jblack@sms.famu.edu, or 850-412 7354. AAWCS is a National Science Foundation funded program.

FAMU CENTER FOR ASTROPHYSICS EXTENDS THE RATTLER TRADEMARK ON GLOBAL RESEARCH

Carol Scarlett, Ph.D., is the first African American female to join the faculty of the Department of Physics in the FAMU College of Arts & Sciences.

Scarlett holds a bachelor’s degree in electrical engineering degree from Yale University, New Haven, Connecticut; a masters degree in physics from Duke University, Durham, North Carolina; and the doctorate in physics from the University of Michigan in Ann Arbor, where she received the Rackham 1st Year and Merit Fellowships, along with the Sloan Fellowship for graduate studies.

Before joining the ranks of FAMU faculty, Professor Scarlett served as a Research Assistant, HERMES project DESY, Hamburg, Germany where she simulated, designed, built and tested a new calorimeter for the Longitudinal Polarimeter (LPLO) and researched D meson production in the HERMES kinematic regime (threshold production). She attained a post doctoral position with Brookhaven National Laboratory (BNL) in Upton, New York, where she worked on the KOPIO experiment to reduce expected background rates to an acceptable level, performed studies on potential sources of background, and wrote a LDRD grant proposal to study photon electromagnetic field coupling. This began research into exotic particles (the Axion) and beyond Standard Model Physics (anomalous curvature). The Laboratory Directed Research & Development committee awarded funding for this continuous research.

Additionally, Scarlett worked with the Office of Educational Programs (OEP) at BNL to support and involve students from the high school level through graduate studies. Through the OEP, she disseminated information about her research, as well as the mission of the BNL, wholistically. Just prior to coming to FAMU, Scarlett was an assistant professor with the U.S. Military Academy, Department of Physics at West Point, where she taught a core physics course to over 120 cadets.
Since joining the faculty of FAMU’s Department of Physics this academic term, Professor Scarlett continues to work with collaborators at BNL. She hopes to build on prior research efforts and to establish a program in the area of High Energy Physics at the National High Magnetic Field Facility. She aspires to receive National Science Foundation (NSF) and/or U.S. Department of Energy (DOE) support for her independent and collaborative research.

DIVISION OF RESEARCH HOLDS RETREAT AT WAKULLA SPRINGS LODGE: FOCUS ON CUSTOMER SERVICE

“How are we doing?” seemingly echoed by “How may we help?” is the NEW! mantra for the Florida A&M University (FAMU) Division of Research after an engaging, fun-filled and empowering retreat held at the rustic Wakulla Springs Lodge recently. “Back-to-basics” is an appropriate phrase relevant to how the Division is seeking to enhance its support to principal investigators and other affected clientele.

Opening and closing remarks provided by Interim Vice President for Research, G. Dale Wesson, Ph.D., PE, helped to set the tone for the day-extensive gathering that included the 20 plus team members of the Offices of Sponsored Programs; Animal Welfare and Research Integrity; and Technology Transfer, Licensing, and Commercialization.

Respective directors for the Offices, Barbara Clayton, MPA; Tanise Jackson, DVM; and Rose Glee, PhD., each shared their Office’s 2007-2008 accomplishments and its 2008-2009 objectives. Then, the Division’s 2007-2012 strategic plans were evaluated for continual update, followed by an open discussion ranging from the University’s forthcoming NEW! website launch, to its ongoing training seminars and workshops to enhance the Division’s overall effectiveness.

In the afternoon, a lively team building workshop facilitated by Nathaniel Wesley, Jr., MHA, FACHE, entitled: "Team Building: Principles and Practices for Successful Workplace Teams—Let’s Win Together!" was enthusiastically received. This included a milk shaker/ice breaker, case exercise for cohesiveness and consensus building, as well as a "throw your hat in the ring" affirmation experience which brought the day to closure. Everyone in attendance seemed ready to catch the vision (of the Division), and the flame also were 2008 Conference themed: "Creative Changes in a Climate of Strategic Visioning.”

For more insight about the FAMU Division of Research and where it’s headed this 2009-2010 academic year, just on the horizon please contact the Vice President’s Office at 850.442.5102.
RESEARCH FUNDING:

Research projects totaling 750 are currently active at Florida A&M University. Research proposals amassing 300 were processed through the Division of Research (DoR) for the 2007-2008 fiscal year. The proposals awarded are typically funded each year by external sources, including the National Science Foundation and U.S. Departments of Education, Agriculture, Health and Human Services as well as other agencies. The charts provide data on awards, averages, and expenditures.

TOTAL RESEARCH AWARDS FOR 2007-2008
$43,668,943

<table>
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<tr>
<th>Sponsor Type</th>
<th>Average Amount</th>
<th>Percentage of Award</th>
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<tr>
<td>Federal</td>
<td>$33,801,756</td>
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<tr>
<td>State</td>
<td>$5,743,466</td>
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<tr>
<td>Other</td>
<td>$4,123,721</td>
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<tr>
<td>Total</td>
<td>$43,668,943</td>
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</table>

- Nursing: $1,065,044
- Pharmacy: $1,429,318
- Graduate Studies: $1,074,460
- Engineering: $2,766,894
- Environmental Sciences Institute: $1,065,044
- Business: $177,449
- Education: $5,564,438
- Administration: $14,663,929
- Allied Health: $1,101,600
- Architecture: $4,018
- Art & Sciences: $1,663,228

<table>
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<th>Fiscal Year</th>
<th>Research Award Total</th>
<th>3yr Trending Average</th>
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<tr>
<td>2002-2003</td>
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<td>2003-2004</td>
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<td>2004-2005</td>
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<td>2005-2006</td>
<td>$54,280,000</td>
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<td>2006-2007</td>
<td>$41,240,000</td>
<td>$47,250,000</td>
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<tr>
<td>2007-2008</td>
<td>$43,670,000</td>
<td>$42,450,000</td>
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In life, and often times here at Florida A&M University, we simply do it until it happens, exhibiting “Excellence With Caring,” striving for “quality as our benchmark!”

And precisely, it is so: “The show goes on!” Each Thursday, on FAMU TV20/Comcast Cable 20: “Research FUND-a-Mentals” is on-the-air. This half hour, educational access, public affairs program showcases the continual research efforts and accomplishments of FAMU. It’s usually comprised of three, seven minute segments with a two to three minute closing; stay tuned!

Please forward all of your show/guest ideas to os.lamar@famu.edu as taping occurs each Tuesday at 11:30 a.m. in room 1023A, FAMU TV20 studio in the School of Journalism & Graphic Communication; the program airs on Thursdays at 8:30 p.m. with an eventual re-broadcast airing on Sundays at 12:30 p.m.

Log onto:
Shows - Full Episodes > Research Fundamentals.

WE APPRECIATE YOUR INTEREST IN RESEARCH AT WWW.FAMU.EDU.

CONTACT: O.S. LAMAR - 850.412.7936 (VOICE) - 850.412.5096 (FAX) - OS.LAMAR@FAMU.EDU
FAMU Quality Enhancement Plan

The overall goal of the Florida A&M University (FAMU) Quality Enhancement Plan (QEP), entitled “Enhancing Performance in Critical Thinking,” is to improve freshman level student learning in the area of critical thinking. Within the context of the FAMU QEP, enhancing student performance in critical thinking is synonymous with improving student learning. As part of the FAMU QEP, course curricula will be redesigned to include explicit critical thinking instructional and learning objectives with corresponding assessment instruments. Consistent with the FAMU Mission Statement, developing students’ critical thinking skills in and out of the classroom will improve student learning, and produce graduates who are more prepared for the challenges of college, career and society. The FAMU QEP has a specific focus on select courses in the University’s general education core that most FAMU students typically take during their freshman year. With a focus on the target courses, and by using the FAMU Critical Thinking Definition (the ability to understand, to apply knowledge, to analyze and solve problems, to develop new knowledge, and to think creatively), and the concepts of Bloom’s Taxonomy (Revised), the FAMU QEP will introduce changes in curriculum, pedagogy, and assessment methods in order to increase the likelihood that freshman students who complete the target general education courses will show measurable improvements in their critical thinking skills, which include the ability to:

- Effectively identify, gather, and process relevant information or evidence;
- Effectively analyze and evaluate information or evidence;
- Make informed judgments about the validity of information and the arguments of others; and
- Use relevant information to solve problems.

Specific activities in and relating to these courses include:

- Writing critical essays; (assessed using newly developed University uniform critical thinking rubrics);
- Preparation and defense of case study analyses; (assessed using newly developed University uniform critical thinking rubrics);
- Mathematical problem solving and data analysis;
- Creation of a Freshman Critical Thinking Seminar Series; and
- Creation of a Freshman Summer Reading Program.

Improvements in student learning that result from implementation of the FAMU QEP will be measured by the anticipated positive and incremental changes in students’:

- Critical thinking skills (as measured by direct assessment instruments, such as critical thinking rubrics),
  the Measure of Academic Progress and Proficiency (MAPP) test, and the Critical Thinking Assessment Test (CAT);
- Knowledge of concepts covered in the targeted general education courses; and
- Work products, as demonstrated by the improvements in their course assignments.

Faculty development will be an important part of the implementation of the FAMU QEP. All University faculty will have the opportunity to participate in a series of faculty development activities designed to improve pedagogy and assessment of critical thinking skills. Accordingly, uniform and effective critical thinking pedagogy and assessment will be embedded into course curricula, which will accomplish the overall goal of enhancing students’ critical thinking skills, with an ultimate improvement in student learning. An annual assessment plan will be implemented to evaluate improvements in student learning that result from the QEP initiatives as well as to evaluate the overall effectiveness of institutional implementation of the QEP.