



## James: NSF program officer attends State meeting

Mississippi EPSCoR would like to welcome our new program officer, Ms. Martha James. She is on assignment to the EPSCoR Office from the Division of Human Resource Development, Directorate for Education and Human Resources, where she co-directs the Louis Stokes Alliances for Minority Participation program.



James is a career NSFer with 27 years of service at the agency, having worked at NSF since 1985 in various directorates. She joined the EPSCoR staff in August 2001 and served from 2001—2006.

James will focus her efforts on the Research Infrastructure Improvement Program, Co-funding, and other special projects. She is a graduate of Trinity College, Washington, DC and is currently pursuing a graduate degree in management.



## Chen named outstanding faculty member

Dr. Yixin Chen was named the University of Mississippi School of Engineering's 2012 Outstanding Faculty Member in recognition of his outstanding achievements in teaching, research, and service. Chen is an associate professor in the Department of Computer and Information Science.



Chen is the first faculty member in Computer and Information Science to be so recognized for this honor.

"Although the Department has had many excellent faculty members over the years, I can think of no one more deserving of this honor than Yixin Chen. He is a very productive researcher, excellent teacher, active citizen of the international computer science professional community, hardworking contributor to the Department's operation, and all-round 'nice guy,'" said colleague Dawn Wilkins who accepted the award for Chen. Chen was unable to attend due to surgery on his

Achilles tendon.

The recipient of the School of Engineering Outstanding Faculty Award is selected by a multistep process involving peers, students, the Engineering Dean, Associate Provost Dr. Maurice Eftink, and representatives of the Engineering Alumni Chapter, based on performance in teaching, research and service during the last three years.



## McCormick named ACS POLY Fellow



University of Southern Mississippi Professor Charles L. McCormick was named a POLY Fellow at the 243rd meeting of the American Chemical Society last month in San Diego, California.

McCormick was honored for "outstanding achievements in and contributions to polymer science." McCormick, who has authored more than 270 technical manuscripts and has mentored 50 doctoral and 30 BS students, including three National Science Foundation Fellows and three Goldwater Scholars, is internationally

recognized for research in the synthesis of water-soluble polymers with applications in energy, remediation, and medicine.

For example, in the rapidly advancing field of nanomedicine, McCormick and students have dedicated their efforts toward the development of polymer/drug

complexes that specifically target and destroy cancer cells.



Dr. Charlie McCormick

## CSI teacher workshop scheduled

Middle school science teachers will soon be experiencing CSI: Mississippi during the 2012 professional development summer teacher workshop. The workshop will be held June 18 - 29, 2012 at Jackson State University in Jackson, MS.

Katie Echols, EPSCoR education and outreach coordinator, said the Creative Science Through Inquiry (CSI) workshop will introduce teachers to the use of forensic science as a method of teaching fundamental science skills and concepts. The workshop is focused around the MS science curriculum and will incorporate biology, chemistry, physical science, physics, mathematics, technology, writing, and more. Participants will experience inquiry-based and laboratory instruction and will receive research-based curriculum materials developed through the MS-EPSCoR program, a stipend, and CEUs.

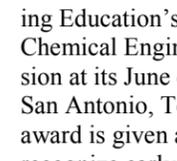
Additional information can be found at: <http://www.msescor.org/events/>

## Williams selected as one of 12 'under 40' scholars

Dr. Byron Williams, a faculty member in the Department of Computer Science and Engineering at Mississippi State University has been selected as one of 12 Diverse: Issues in Higher Education's Emerging Scholars for 2012. These twelve "under 40" scholars were

## Walters earns national award

Dr. Keisha B. Walters, an associate professor, will receive the Raymond W. Fahien Award from the American Society for Engineering Education's (ASEE) Chemical Engineering Division at its June conference in San Antonio, Texas. The award is given annually to recognize early-career faculty who have shown evidence of vision and contribution to education in the field.



"I was familiar with Keisha's work even before I came to Mississippi State," explained Jason Keith, director of the Swalm School of Chemical Engineering. "She has been one of the most balanced members of our program, and has excelled in both teaching and research."

Since joining the Mississippi State faculty in 2005, Walters

has earned numerous awards for innovative teaching and devotion to her students including being named to the Bagley College of Engineering's Academy of Distinguished Teachers and earning a StatePride Faculty Award from the university. She has been selected to participate in the National Academy of Engineering Frontiers of Engineering Education symposium and is a noted author within ASEE.

Beyond earning recognition from national organizations and her peers, Walters' outreach and classroom activities have captured the attention of her students who in evaluations have commented on her obvious passion for teaching and ability to motivate them to be better engineers.

She says it is her passion for promoting science, technology, engineering and mathematics that has encouraged her to be innovative in the classroom and reach out to

students and teachers at all levels.

"One of my goals as an educator is to not only share knowledge with my students, but also my passion for learning," Walters said. "By initiating or supporting the spark of intellectual curiosity, I hope to impact my students throughout their lives."

Walters holds doctoral and master's degrees in chemical engineering, and a bachelor's in biological sciences, all from Clemson University.

The Fahien Award is given in honor of Ray Fahien who is considered the founding father of American Society for Engineering Education's (ASEE) Journal of Engineering Education. It is presented annually to an educator who has been faculty for less than 10 years and has demonstrated outstanding teaching effectiveness and educational scholarship.

## Stoddard wins first in oral presentations

Shanna Stoddard, an EPSCoR supported PhD student working under Dr. Randy Wadkins of the Department of Chemistry and Biochemis-

try at UM won first place in the Chemistry and Chemical Engineering Div. for graduate student oral presentations at the Mississippi Academy of

Sciences 2012 Annual Meeting. Her talk was entitled "In Silico Generation and Evaluation of Carboxylesterase Inhibitor Scaffolds."

selected for making their mark and serving as an inspiration for others in teaching, research and service.

Williams says he considers it a responsibility to ensure that other students are given similar support and mentoring that was essential to my ac-

complishments. I understand the environmental and socio-economic challenges African-American males face and the impact on their academic self-concept. I want to use my experiences to help mentor other African-American males to complete Ph.D. degrees in computing," Wil-

iams said.

Williams is featured in the January 5th edition of the magazine which is available online at <http://editiondigital.net/publication/?i=95367>.



## EPSCoR holds Research Day at the Mississippi Capitol

EPSCoR project team personnel along with students from the state's four research institutions hosted the EPSCoR Research Day at the Capitol in Jackson, MS on Wednesday, February 2, 2012.

Beginning with breakfast in the Capitol rotunda for the legislators, lobbyists, media representatives, and others, students displayed their research posters in their respective areas of research.



Nicole Stein, (MSU) speaking with Representatives Donnie Bell (I) and Joey Hood.

The intent of the Research Day was to educate State legislators on the importance of EPSCoR funding in Mississippi and its impact on science, technology, engineering and mathematics throughout the state.

Students participating in Research Day were Drew Pruett, University of Mississippi Medical Center, mentor is Robert Hester; David Jayroe, University of Southern Mississippi, mentor is Tim McLean; Dilip Gautam, Mississippi State University, mentor is Andy Perkins; Michael Macias, University of Mississippi, mentor is Dawn Wilkins; Habib ur Rehmanall, MSU, mentor is Steve Gwaltney; Nicole Stein, MSU, mentor is Keith Walters; Christina Bernard, JSU, mentor is Raphael Isokpehi;

Noel Matthews-Gardner, JSU, mentor is Glake Hill; Debra Jo Scardino, UM, mentor is Nathan Hammer; Shanna Stoddard, UM, mentor is

Randy Wadkins; Marquita Watkins, JSU, mentor is Jerzy Leszczynski; Gabrielle Cooper, JSU, mentor is Raphael Isokpehi.



Back Row (l-r) Drew Pruett, David Jayroe, Dilip Gautam, Michael Macias, Habib ur Rehmanall; Second row—Nicole Stein, Christina Bernard, Noel Matthews-Gardner, Debra Jo Scardino; Front row—Shanna Stoddard, Marquita Watkins, Gabrielle Cooper.

## Three EPSCoR students complete grad degrees

Shaneka Simmons, from Jackson State University (JSU) successfully defended her Ph.D. dissertation in Environmental Science on April 11, 2012. She will be conferred with the Ph.D. degree on April 27, 2012. She has been part of MS EPSCoR since 2006. Her research on universal stress proteins has facilitated at least six Masters Thesis at JSU. Her EPSCoR mentor is Dr. Raphael Isokpehi.



She participated in the EPSCoR National Conference in Idaho in October, 2011. Her thesis is titled, "Unlocking the Barriers of Communicating the Sciences: Broadening Student Participation in Research." Her EPSCoR mentor is Dr. Raphael Isokpehi.

Ashley Cornell, from Mississippi State University, successfully defended her Master's Thesis titled, "Studies in Applied Materials Science: Drug-Biofluid Interactions and Light-emitting Polymer Films." Ashley will graduate May 11, 2012. Her EPSCoR mentor is Dr. Keisha Walters.



Adrean Mason, JSU, successfully defended her Master's Thesis in Mass Communication on April 11, 2012.



## Perkins elected MCBIOS President

The MidSouth Computational Biology and Bioinformatics Society (MCBIOS) held its Annual Meeting in Oxford, MS, February 17-18. One hundred sixty-five faculty scientists and students from nine states participated in the conference. EPSCoR computational biology researchers, Dawn Wilkins, Andy Perkins, and Susan Bridges, served on the Local Conference Committee along with Dr. Doris Kupfer from the Federal Aeronautics Administration in Oklahoma City, OK. Kupfer has served as President of MCBios for the past year and has recently joined the Mississippi EPSCoR National Advisory Board.

Dr. Chaoyang "Joe" Zhang from USM was elected to the Board of Directors.



The following EPSCoR student researchers won awards: First Place Poster Award (biological merit): Tamer Aldwairi of Mississippi State University (Dr. Andy Perkins, major professor); Second Place Poster Award (biological merit): Dilip Gautam of Mississippi State University (Dr. Andy Perkins, major professor). First Place Oral Presentation: Shanna Stoddard of the University of Mississippi (Dr. Randy Wadkins, major professor).



Perkins was elected



## Industry collaboration yields Wysocki pub

An article submitted by Dr. Annette Wysocki, professor in the Division of Cardiothoracic Surgery at the University of Mississippi Medical Center in Jackson, will be published in Nano LIFE magazine in the coming months.



Wysocki received an EPSCoR Seed Grant in year two of the current five year project. As part of the seed grant, Wysocki collaborated with Hybrid Plastics in Hattiesburg, MS to engineer and test biomaterials that can be used to replace cartilage in joints.

The article is titled, "Cell Migration and Proliferation in Bionanohybrids Composed of Type II Collagen and Poss Amphiphiles."

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## UMs Reinemann named Scholar



Reinemann was recently named the University of Mississippi's 13th Goldwater Scholar.

The scholarship provides

Computational Chemistry undergraduate and chemistry major Nikki

up to \$7,500 per year to assist with the recipient's tuition, fees, books, and room and board. Reinemann is a member of the Sally McDonnell Barksdale Honors College and is performing her senior research in the labs of Dr. Nathan Hammer in a collaborative project with Dr. Gregory Tschumper. Her

project involves the spectroscopic and theoretical study of dative bonded systems. This represents the second Goldwater Scholar in three years for UMs Department of Chemistry and Biochemistry. Anna Hailey (also supported by EPSCoR in Dr. Hammer's group) received the award in 2010.

## MSU students win research awards

Undergraduate student Jonathan Harper and PhD student Brandon Malone were recent winners of the MSU Bagley College of Engineering student research awards.

Harper is completing his BS degree in computer science in May. He was initially supported by EPSCoR to work with Dr. Susan Bridges in the area of computational biology. He has subsequently worked as a research assistant with Dr. Paul Williams in USDA performing re-

search in the area of bioinformatics and is currently working as a research assistant at CAVS with Dr. Ed Luke in the area of high performance computing. Harper participated in summer research experiences at both NASA Goddard Space Flight Center and UC Berkeley and will begin a PhD program at UC Berkeley this fall.

Malone is an EPSCoR supported PhD student in computer science graduating in August, 2012. He is currently working with

EPSCoR researcher Dr. Change Yuan in the Uncertainty Reasoning Laboratory. Brandon's current work focuses on developing algorithms for learning optimal Bayesian networks. Brandon has 3 journal articles and 6 refereed conference publications during his time as a student at MSU. He has accepted a position at the Finnish Centre of Excellence in Computational Inference Research where he will continue his research in Bayesian reasoning and computational biology.

## UM students travel to UK for training

Three undergraduate students working in the laboratory of Dr. Nathan Hammer of the Department of Chemistry and Biochemistry at Ole Miss traveled to the University of Reading in the United Kingdom to receive detailed hands-on training in the use of a diamond anvil cell for high pressure spectroscopic research. Dr. Hammer's lab has purchased an instrument from EasyLabs in

Reading. The students are (l-r) Annie McClellan, a chemistry major from Southaven; Marcio Siqueira (EasyLab Owner); Dana Reinemann, a double major in chemical engineering and chemistry from Batesville; and Lynn

