Annual Research Awards Banquet

Monday, April 29, 2013
Palmeiro Center
6 p.m.

Hosted by the Vice President for Research and Economic Development and the Vice President for Agriculture, Forestry and Veterinary Medicine
Thank you for joining us for this year’s Annual Research Awards Banquet at Mississippi State University. We look forward to celebrating the talented and hard working people who have contributed to our research enterprise, and honoring many of you for your special achievements.

Mississippi State-led research is one of our state’s unparalleled success stories, and each of you plays a role in that success. Tonight, we say thank you and congratulations for a job well done.

David Shaw
Vice President for Research and Economic Development

Greg Bohach
Vice President for Agriculture, Forestry and Veterinary Medicine

Tonight’s Program

Welcome..........................Dr. Greg Bohach
Prayer .................................. Dr. David Shaw
Dinner
Presentation of Awards

College of Agriculture and Life Sciences &
Mississippi Agricultural and Forestry
Experiment Station
Dr. George Hopper
Faculty ..........................Dr. Brian Baldwin
Research Support ................. Jovonn Hill
Graduate Student ............... Brian Luck
Undergraduate Student ........ Kaitlyn Hardin

College of Forest Resources & Forest and Wildlife Research Center
Dr. George Hopper
Faculty ..........................Dr. Philip Steele
Research Support ............. Dr. Venkata Penmetsa
Graduate Student ............ Nate Svoboda
Undergraduate Student ....... Jason Cromer

College of Veterinary Medicine
Dr. Mark Lawrence
Faculty ..........................Dr. Bindu Nanduri
Research Support ............. Dr. Andreaza Soriano Figueiredo
Graduate Student........... Ronald Benjamin Pringle
College of Architecture, Art and Design
Dr. Jim West
Faculty ................................ Dominic Lippillo
Research Support .................. Kelsey Johnson
Undergraduate Student .... Whitten Sabbatini

College of Arts and Sciences
Dr. Greg Dunaway
Faculty .................. Dr. Dongmao Zhang
Research Support ........ Dr. Carly Cummings
Graduate Student .............. Jonelle Husain
Undergraduate Student ...... Donald Brown

College of Business
Dr. Sharon Oswald
Faculty .................. Dr. Marcia Watson
Graduate Student ................. Robert Van De Graaff Randolph
Undergraduate Student ...... Parker Stewart

College of Education
Dr. Richard Blackbourn
Faculty .................. Dr. Stamatis Agiovlasitis
Research Support ............. Lorie White
Graduate Student ............... Roland Orvil Webster IV
Undergraduate Student .... Jennifer Cooper

Bagley College of Engineering
Dr. Jerry Gilbert
Faculty .................. Dr. Pedro J. Mago
Graduate Student .............. Mohsen Eshraghi
Undergraduate Student ...... Ankit Singh Arya

University Centers and Institutes
Dr. Teresa Gammill
Faculty ............... Dr. Jim Aanstoos
Research Support .......... Lee Hathcock

Office of Research and Economic Development
Dr. Teresa Gammill
Research Support .......... Marlene Langford
Graduate Student .......... Lanford Porter

Faculty Leadership Graduates, 2012-2013
Dr. Ray Vaughn
Dr. Sherif Abdelwahed Dr. Kimberly Kelly
Dr. Matthew Boggan Dr. Lelia Scott Kelly
Dr. Angi Bourgeois Dr. Thomas Lacy
Dr. Cody Coyne Dr. Andy Londo
Dr. Dana Franz Dr. Karen McNeal
Dr. Todd French Dr. Oliver Myers
Dr. James Giesen Dr. Trisha Phillips
Dr. Mark Horstermeyer Dr. Colleen Sinclair
Dr. Isaac Howard Dr. Henry Wan

Ralph E. Powe Research Excellence Award
Dr. David Shaw and Dr. Greg Bohach
Dr. Daniel G. Peterson

Closing Remarks ............... Dr. David Shaw
Thanks and Recognition

**Institutional Animal Care and Use Committee**

Chris Brooks  
Patricia Cox  
Jeffrey Eells  
William Epperson  
Jack Forbus  
Mark Guyton  
Cary Herndon  
Ray Iglay  
Aaron Kiess  
Patty Lathan  
James M. Martin  
Robert Meyer  
Chuck Mischke  
Brian J. Rude  
Lucy Senter  
Trent Smith  
Kacey Strickland  
Joe Tkach  
Kevin Walters  

**Conflict of Interest Review Committee**

Barry Barnett  
Tim Barnett  
Kathy Dooley  
Jennifer Easley  
Sandra Eksioglu  
Mark Lawrence  
Joan Lucas  
Rachel McCann  
Mary McThomas  
Mark Measells  
Bart Moffatt  
Jordan Ramsey  
Judy Spencer  
Kacey Strickland  
David Van Landingham  
Ken Willeford

**Institutional Biosafety Committee**

Clarissa J. Balbalian  
Dr. David Chevalier  
Robert K. Collins, M.D.  
Dr. Patricia D. Cox  
Dr. Janet Donaldson  
Dr. Steven Elder  
Dr. Carla Huston  
Curtis Jernigan  
Joan Lucas  
Dr. Michael R. McLaughlin  
Dr. Timothy W. Morgan  
Dr. Ramakrishna Nannapaneni  
Dr. G. Todd Pharr  
John Stokes  
Kacey Strickland  
Rev. James Lee Winter

**Institutional Review Board for the Protection of Human Subjects**

Carolyn Adams-Price  
Kari Babski-Reeves  
Joe R. Bumgardner  
Robert K. Collins  
Deborah Eakin  
Burak Eksioglu  
Kevin Ennis  
Steven Grice  
Shirley Hanshaw  
Dwight Hare  
Carlen Henington  
Lauren Jones  
Gloria Liddell  
John Long  
Nicole Morse  
Kathleen Ragsdale  
Tom Ritter  
Jodi Roberts  
Angela Robertson  
Jamie Stewart  
Cliff Story  
J. Ed Swan  
Kathleen Thomas  
Ben Wax  
Christine Williams  
Kathi Wilson

**Radiological, Chemical and Laboratory Safety Committee**

Peter Allen  
Mark Bricka  
Donna Gordon  
Joe Massey  
David Monts  
Alicia Musselwhite

**Ralph E. Powe Research Excellence Award Winners**

2012 — Dr. Kambham “Raja” Reddy  
2010 — Dr. Stanislaw Grzybowski  
2009 — Dr. Shane Burgess  
2008 — Dr. Mark Horstemeyer  
2007 — Dr. Louis D’Abramo  
2006 — Dr. Jung P. Shim  
2005 — Dr. H. Michael Barnes  
2004 — Dr. Domenico Parisi  
2003 — Dr. Thomas E. Nebeker  
2002 — Dr. Douglas L. Marshall  
2001 — Dr. Roger L. King  
2000 — Dr. David R. Shaw  
1999 — Dr. Robert W. Rogers  
1998 — Dr. Charles U. Pittman, Jr.  
1997 — Dr. Lewis R. Brown
Brian Baldwin was born and grew up on Long Island, N.Y., — first generation off the farm. Educated in Maine (B.A.), and New Mexico (M.S. and Ph.D.), he has worked in various sectors of U.S. agriculture from the Northeast to the South and Southwest. He moved to Mississippi State in 1990, and first worked as assistant dean of the (then) College of Agriculture and Home Economics (now CALS). Desiring academic promotion, he sought and obtained a faculty position in the (then) Department of Agronomy (now Plant and Soil Sciences) where he taught plant breeding and grain crops. Baldwin obtained a soft money research appointment first working with grain sorghum, and then with kenaf. His teaching focuses on plant genetics and improvement, but he also teaches plant propagation, and has taught plant science, seed production and seed physiology. His research has always focused on alternative crops for the Mississippi farmer. Current research includes work on oilseed crops, native grass improvement and bioenergy crops.
Research associate JoVonn Hill’s love of the outdoors has led to a unique career combining his interests of grasslands and insects. The Meridian native enjoyed playing in and exploring the forests and pastures near where he lived when he was younger.

JoVonn received his bachelor’s degree from MSU in interdisciplinary science, with emphases in forestry, wildlife and biology. Now an entomology doctoral student, he mainly works with Southeastern grasslands, studying restoration and management practices for black land prairies.

After finishing his bachelor’s, he received a master’s in entomology researching ants. He has since worked for the university for seven years studying ants and grasshoppers. Additionally, he is the Mississippi Entomological Museum’s grasshopper curator and recently added to the collection with a large portion of the Smithsonian’s grasshopper collection, which includes specimens from the 1800s.

As well as contributing to and editing a book about Southeastern grasslands, JoVonn is currently working on a revision of a species group of grasshoppers that occurs across the eastern U.S. for his dissertation work and has a long-term goal of writing a book on the grasshoppers of the Southeastern U.S.

He also is the chair of the William L. Giles Burr Oak Preserve committee. The preserve, located on South Farm, was established in the 1960s to conserve a rare tree in Mississippi. He is working to restore the preserve and turn it into a valuable research tool.

While it would be easy to become exhausted with such a busy schedule, JoVonn said his job is one of the things that keep him going.
In 2010, Brian Luck came to Mississippi State University's Agricultural and Biological Engineering Department to work on a biological engineering Ph.D. degree under the direction of Dr. Jeremiah Davis. Before arriving at MSU, Brian was employed full-time at the University of Kentucky working on the development of a “Milk Transport Traceability and Security System,” as part of a $3-million Homeland Security grant. He was the lead engineer of the team that received a patent for the work in 2011. While working full time, he also fulfilled the requirements for a M.S. degree in biosystems & agricultural engineering.

Brian’s technical background is in instrumentation and precision agriculture. His Ph.D. research calls for the application of these techniques, usually reserved for row crop production, to the Mississippi poultry industry. Over the past few years, Brian has developed a Scalable Environment Assessment System (SEAS) that can be used to measure spatial environmental parameters within a poultry house. The overall goals of the project are to improve bird well-being, increase bird uniformity and performance, and improve energy efficiency to make the poultry growers more sustainable.

Brian has been awarded the opportunity to participate in the most recent Preparing Future Faculty Program at MSU. Also, he has been awarded the 2013 Outstanding Graduate Student Researcher award for the Forest and Wildlife Research Center at MSU. In January 2013, he accepted a faculty position in the Department of Biological Systems Engineering at the University of Wisconsin-Madison. In December, he will begin working with farmers in the areas of precision agriculture and forage harvesting under a research/Extension split. Coming from a farming background, Brian is committed to developing new technologies/methodologies that will provide the economic impact needed to keep farm families, like his, profitable and in business.
Diana Kaitlyn Hardin is a graduating senior this semester with a double major in Animal and Dairy Sciences and Biological Sciences. Kaitlyn grew up in Pontotoc on a Jersey dairy farm. This background provided her with extensive experience in dairy production, and she was active in 4-H programs and showing livestock. Kaitlyn continued with her interests at MSU, where she worked at the Bearden Dairy Research Center, participated in many extracurricular activities including her current role as president of the Dairy Science Club, and even led a group of students to show MSU’s dairy cattle at the Mississippi State Fair. Kaitlyn has also been active in undergraduate research, preparing her for her next role as a graduate student at Virginia Tech, where she will be headed this fall.
Dr. Philip Steele has been a professor in the Department of Forest Products in the College of Forest Resources at Mississippi State University for 25 years with both research and teaching duties. He is also the Thrust Leader of the Sustainable Energy Research Center Bio-oil Research Group. In this role, he coordinates the research activities of MSU faculty researchers focused on developing fuels and chemical products from bio-oil produced from forestry and agricultural products. His research area is the production of bioenergy from pyrolysis of forestry and agricultural biomass.

Dr. Steele has won several research awards including the College of Forest Resources Outstanding Research Award and awards for exceptional research papers from both the Hardwood Research Council and the Forest Products Society. He also received a State Pride award for 2010, 2011 and 2012. He also won the College of Forest Resources 2010 Warren S. Thompson Professor of Wood Science and Technology award for research excellence. Most recently he was chosen to receive the 2013 CFR Faculty Research Award. Dr. Steele has four U.S. patents and three U.S. patents that are pending. Three of his patents have been licensed. He has published widely and is the author or co-author of more than 100 research papers.
Dr. Venkata Penmetsa has been a postdoctoral research associate in the Department of Forest Products at MSU from August 2010 with research duties. He is currently involved in a couple of research projects relating to biofuels and energy pellets from forestry and agricultural products. His research area is the production of bioenergy from pyrolysis of forestry biomass and production of water repellent combustible energy pellets to replace coal from various agricultural biomass.

Dr. Penmetsa has done his Ph.D. in chemical engineering from IIT Delhi, India, and was research associate at Ecole Polytechnique, Montreal, Canada. He has expertise in gasification, pyrolysis, combustion, catalysts preparation, etc. He is actively involved in finding alternative methods for producing bio-oil and upgrading the bio-oil to transportation fuels in an economical way. He has been invited to various conferences and workshops as a panel speaker. Dr. Penmetsa has one U.S. patent filed on “Methods for producing binders and combustible composite materials and compositions produced therefrom” and is licensed to Parker Towing Company in Tuscaloosa, Ala. He has published widely and is the author or co-author of several research papers.
Nathan J. Svoboda is from Omaha, Neb., where he received his bachelor’s degree in biology from the University of Nebraska in 1999. He then moved to Michigan where he received his Masters of Science degree in conservation biology from Central Michigan University in 2006, while working full time as a wildlife biologist. His master’s research focused on habitat use, home-range size and spatial distribution of bobcats in Michigan’s northern Lower Peninsula.

Nate is currently a Ph.D. candidate who joined the Department of Wildlife, Fisheries, and Aquaculture at MSU under the direction of Dr. Jerrold Belant in the spring of 2009. His doctoral research focuses on resource selection by carnivores relative to the pulsed resource event of white-tailed deer parturition in the Upper Peninsula of Michigan. Specifically he is investigating shifts in space use and movement patterns by black bears, bobcats, coyotes and wolves in response to fawn abundance and distribution. His research interests include multi-scale resource selection by carnivores, habitat and population modeling and the implementation of GIS to aid in wildlife research. He is a faithful Nebraska Cornhusker fan, an animal lover and enjoys hiking, backcountry skiing, mountain biking and traveling. He currently spends his “free time” traveling from his office to his apartment and then back to his office.
Jason W. Cromer was born in Lexington, S.C., and is the son of Phillip and Teresa Cromer. He grew up in the small, rural town of Ridge Spring, S.C. Jason attended high school at Wyman King Academy where he was actively involved in athletics, participating in baseball, basketball and football. Jason was also a member of the WKA sporting clay team where he received multiple awards for his efforts at the local, state, and national level. Jason continued his passion for outdoor and recreational activities by pursuing a degree in forestry at Mississippi State University.

Jason is currently a senior in the College of Forest Resources at Mississippi State and will be graduating in May 2013 with a Bachelor of Science degree in forestry with the wildlife management option. While attending MSU, Jason has participated in a variety of extracurricular activities within the college. He currently serves as the vice president of the Society of American Foresters at Mississippi State as well as secretary of the College of Forest Resources Dean's Student Council. Jason began assisting with graduate research in the summer of 2010 where he aided in performing line intercept methods for pine beetle infected material and collected soil samples for compaction on thinned timber sites. Simultaneously, Jason assisted Dr. Randall J. Rousseau in the College of Forest Resources by maintaining Salix nigra (black willow) and Populus deltoids (cottonwood) seedlings and research plots. During the summer of 2012, Jason continued his participation in undergraduate research with Dr. Randall J. Rousseau working with genetic crosses of Populus deltoides (cottonwood) and Salix Nigra (black willow) first year saplings. Jason assisted in collecting and analyzing data from research plots where he examined growth yields and survival statistics of cottonwood clones with the objective of finding disease resistant clones with high volume yields.

Upon completion of his degree in May 2013, Jason will be working to complete a Master of Science degree within the College of Forest Resources at MSU.
Dr. Bindu Nanduri earned her master’s degree in biosciences in 1991 from the University of Roorkee in India. She obtained her Ph.D. in biochemistry and molecular biology from the University of Arkansas for Medical Sciences (UAMS) in 1998. She continued to conduct biomedical research as a post-doctoral fellow at UAMS and UMDNJ, Newark. She joined MSU/CVM in 2003 and has been through the ranks of a post-doc, research assistant professor, and her current tenure track assistant professor position, in the Department of Basic Sciences at CVM. She credits her success to the excellent mentorship and guidance that she received at MSU/CVM. Her introduction to computational biology through Mississippi EPSCoR has been an important component of her professional development.

Dr. Nanduri’s primary research interest is in studying the host-pathogen molecular interactions that underscore disease mechanisms. In her laboratory, she uses proteomics, transcriptomics, bioinformatics and computational biology to determine molecular mechanisms of host and/or pathogen responses during infection. Her collaborative research on bovine respiratory disease (BRD) focuses on identifying protein biomarkers for accurate BRD diagnostics using animal challenge models. She is also studying the role of polyamines and an iron dependent transcriptional regulator in pneumococcal disease using mouse models. She is interested in delineating the early host immune responses in sepsis to determine whether there is a ‘trigger event’ that could predict the final outcome. Of course, none of this is possible without the love and support of Ram, her husband, and the wisdom of her ‘10-going-on-40’ son Vayd.
Dr. Andreza S. Figueiredo is a postdoctoral associate in the Department of Pathobiology and Population Medicine at Mississippi State’s College of Veterinary Medicine. She earned her D.V.M. from Universidade Federal de Viçosa (UFV), Brazil, and the M.S. and Ph.D. from Universidade Estadual Paulista (UNESP), Brazil.
Born and raised in a rural community in southeastern South Dakota, Ronald Pringle recently successfully defended his Ph.D. dissertation — “Neural Protection in the Central Nervous System Against Nerve Agent Surrogates Using Novel Pyridinium Oximes” — and now plans on doing a post-doc at Mississippi State. Currently, he is a graduate research assistant for the Center for Environmental Health Sciences at MSU. A high school valedictorian, he earned B.S. and M.S. degrees from the University of South Dakota in Vermillion, S.D. He is a member of Sigma Xi International Honor Society, Golden Key National Honor Society, Society for Neuroscience and Society of Toxicology. To date, he has five published manuscripts and 18 published abstracts. Recent honors include CVM Research Day poster competition winner (3rd place); graduate travel award, Society of Toxicology; and graduate travel award, Mississippi State University (TAGGS Award).
Dominic Lippillo is an assistant professor of photography in the Department of Art at Mississippi State University. He received a BFA in Studio Art with an emphasis in photography from Youngstown State University in Youngstown, Ohio, in 2005. In 2009, he received an MFA in photography from Ohio University in Athens, OH. Lippillo’s visual research focuses on the depiction of space and place in relation to domesticity, family, and the uncanny. He has approached these ideas in several projects that intimately examine his own living spaces. His work has been shown nationally and internationally.

Upon relocating to Starkville in 2010, Lippillo received an artist mini-grant from the Mississippi Arts Commission for his project Fifteen Homes, an intimate exploration of depictions of space and place in vernacular photographs found in his family archive. Selections from his series Under a Calm Surface have won awards in juried exhibitions; most recently in 2012 he was awarded Best in Show in the exhibition Of Memory, Bone and Myth held at the Rourke Art Museum in Moorhead, Minn., juried by Stephen Perloff, founder and editor of The Photo Review. He received an Award of Excellence at the 2012 Mississippi Art Faculty: Juried Exhibition held at the Lauren Rogers Museum of Art in Laurel, juried by Miranda Lash, the curator for modern and contemporary art at the New Orleans Museum of Art.

In 2012, Lippillo was a co-chair for the South Central Society for Photographic Education regional conference, Nothing Ventured/Nothing Gained: The Creative Risk, co-hosted by the Department of Art and the Department of Communication at Mississippi State University. The purpose of the conference was to critically examine the three major physical sectors of photography: traditional, digital, and alternative processes. This was accomplished over four days with image-maker presentations, panel discussions, exhibitions, workshops, and portfolio reviews.
Kelsey Johnson is a community planner with the Gulf Coast Community Design Studio (GCCDS), a non-profit professional office that offers sustainable design services in architecture, planning and landscape to the communities of the Mississippi Gulf Coast. Her work has focused on assessing housing priorities on the Mississippi Gulf Coast and developing recommendations as part of a three-year regional sustainability plan. She also works with various communities and organizations along the coast on planning and public engagement.

Prior to joining the studio, she worked as an environmental planner II at the Metropolitan Washington Council of Governments. There she worked with various governmental partners as part of the Anacostia Watershed Restoration Partnership, as well as with schools and community groups to educate students and residents about restoration efforts and stewardship. Kelsey holds a Master of Urban and Regional Planning degree from the University of Michigan, focusing on environmental and land use policy and planning. The majority of her studies concentrated on planning issues and policy in coastal towns. While earning her master’s degree, she served as an AmeriCorps member in the Community and Economic Development Department at Focus: HOPE in Detroit, Mich. There she worked closely with community groups on neighborhood revitalization and capacity building.

Kelsey holds a Bachelor of Science degree in environmental studies from Bucknell University. She is a 2013 class member of Leadership Hancock County, and serves on the Community of Choice Workgroup for Hancock County’s Economic Development Strategy.
Whitten Sabbatini is a graduating senior in the Department of Art with a concentration in photography. During his time at Mississippi State University, while studying under Dominic Lippillo and Marita Gootee, Whitten has been actively exhibiting his visual research in juried exhibitions on the national and international level. During the past academic year, Whitten has been in six juried exhibitions and won a highly competitive travel grant from the Society of Photographic Education.

Along with having an active exhibition record, Whitten is also active in the Department of Art by participating on the Dean’s Art Advisory Council. His role on the council is to be a student liaison, and advocate for the students in the department. Whitten was also featured as one of Mississippi State’s “Our People” on the university website. This honor recognized Whitten’s visual research and service, while also bringing attention to the department.
Dr. Dongmao Zhang | Faculty
College of Arts and Sciences

Dr. Dongmao Zhang received his bachelor's degree in chemistry from Wuhan University in China in 1987, and his Ph.D. in analytical/physical chemistry from Purdue University in 2002. His dissertation research focused on multivariate data processing methods for Raman spectroscopic and Raman imaging analysis. From 2002-2005, he worked as a research associate, assistant research scientist, and research scientist in the Department of Chemistry and the Bindley Bioscience Center at Purdue University. His post-Ph.D. research at Purdue culminated with the invention of the drop-coating deposition Raman method and the isotope surface enhanced Raman tagging technique, the two Raman spectroscopic techniques that have gained increasing popularity among various scientific disciplines.

After working 14 months as an analytical chemist at GE where he won two quarterly GE Plastic Leadership Awards, Dr. Zhang took a research scientist position in Prof. Naomi Halas' Laboratory for Nanophotonics at Rice University. Subsequently, Dr. Zhang joined the faculty as assistant professor in the Department of Chemistry at Mississippi State University in 2008.

Dr. Zhang's independent research at MSU has led to 17 peer-reviewed articles in journals such as Nano Letters, Journal of Physical Chemistry Letters, and Analytical Chemistry. His main research interests include 1) developing Raman and surface enhanced Raman spectroscopic techniques for detection of protein post-translational modifications and 2) understanding the interfacial phenomena of metallic nanoparticles that include ligand adsorption, desorption, reaction, structure, and conformation on the nanoparticle surfaces. He is a recipient of the prestigious NSF CAREER Award for his proposed research on developing an ultrasensitive surface enhanced Raman based technique for detection of protein oxidative damage.
Carly Cummings, the assistant to the dean-research, earned a B.S. in microbiology from Michigan State University, and a Ph.D. in molecular microbiology and immunology from Oregon Health and Science University. After graduate school, she was an assistant professor of biology at Castleton State College in Vermont, and then moved to Washington, D.C., to gain a policy perspective on science and technology.

In the nation’s capital, Dr. Cummings was a Christine Mirzayan Science and Technology Policy Fellow at the Institute of Medicine of the National Academies, where she worked to support and prepare consensus studies that provided advice to federal decision makers. She also worked at the American Association for the Advancement of Science (AAAS) in the Research Competitiveness Program (RCP). As a senior program associate with RCP, she assembled and led teams of senior researchers and administrators to provide research proposal and programmatic reviews to a variety of clients, including universities, state governments, and federal agencies. These projects spanned many scientific disciplines and scopes, from building research capacity at the state level, to the peer-review of basic and applied research projects, and research commercialization efforts. Prior to this position, Dr. Cummings was an instructor in the Department of Biological Sciences at MSU.
Jonelle Husain is a doctoral candidate in the Department of Sociology where she researches the pro-life movement in Mississippi. Her dissertation research is an ethnographic study of women who participate in a post-abortion healing group. These groups, largely sponsored by crisis pregnancy centers, frame abortion as a traumatic experience leading to post-abortion syndrome (PAS), a mental disorder similar to post-traumatic stress disorder (PTSD). Despite the refusal by every major medical association in the U.S. to recognize and endorse the legitimacy of post-abortion syndrome, claims that abortion damages women continue to gain currency with the general public. More importantly, the public support for these claims has resulted in the passage of increasingly restrictive abortion regulations. Jonelle situates her research in the broader context of the Mississippi voter initiatives to enact fetal personhood legislation to better understand how the role of political rhetoric on abortion both shapes and is shaped by PAS groups.

Husain has extensive research experience at the Social Science Research Center where she worked as both a graduate assistant and as a research associate on a broad range of quantitative and qualitative projects. She has authored numerous reports to funding agencies, collaborated on several peer-reviewed research articles, and worked as both a principal investigator and as a co-principal investigator on several research projects.

In 2011, she was invited to present her research at the national Advancing Ethics in Research in Washington, D.C., where she addressed an audience of approximately 500 regulatory compliance officers on the ethical considerations of conducting research on abortion. More recently, Husain has focused on peer-reviewed publications. She has two articles in Battleground: The Family and an encyclopedia entry with her co-major professor, Kimberly Kelly, along with two earlier peer-reviewed publications. More recently, she had an article accepted for publication in Stigma Research and Action (as first author with Dr. Kelly) and she has two more co-authored pieces in progress.

Since 2009, Husain has been a full-time lecturer in the Department of Sociology where she teaches several sections of introductory level courses including Introduction to Sociology, Social Problems, and Marriage & Family. She currently works with more than 500 introductory-level students each semester and was recognized in 2012 with an outstanding teaching award for her work in recruiting new majors to the discipline. Demanding but fair, she sets high standards for her students and works to facilitate her students’ growth as young scholars in training.
From Vicksburg, Donald Brown has always loved reading books. This love began as a child with his affinity for Dr. Seuss, and then evolved into reading ESPN Magazines and John Grisham novels, and has now metamorphosed into a love for cultural jazz criticism, postcolonial critical theory and existentialism. Donald is a junior double majoring in English and Philosophy, and aspires to earn his Ph.D. in English.

After receiving the SROP/McNair Scholarship last spring, Donald was able to get one-on-one research experience and mentoring at the University of Iowa. During his Summer Research Opportunities Program in Iowa City, Donald found his specialization that he wants to pursue for graduate school, namely, 20th century African-American Literature. During the 2012 summer, he analyzed the works of Ralph Ellison, James Baldwin and Richard Wright, as well beginning to develop the critical framework for thinking about contemporary racial issues nationally and globally. Since then, he has continued to develop his research ideas with professors here at Mississippi State, and has another big summer ahead of him. He will study abroad for six weeks at the University of Oxford as a part of the Shackhouls Honors Program, and then he will study for the remainder of the summer at Stanford University as a part of the Leadership Alliance Program. He wants to eventually teach African-American Literature.

Donald is the son of Willie and Cynthia Brown. He has one older brother, Willie Brown, Jr., who also graduated from Mississippi State University, and now works in MSU’s Social Science Research Center. His brother is his role model and best friend. He is very thankful for the opportunities God has given him here at Mississippi State University, which has allowed him to meet great professors and fellow students who have stretched his limits in ways he could have never imagined coming into college. The experience has made him not only a better scholar, but a more responsible person.
Dr. Marcia Watson is the Von Graham Associate Professor in the Adkerson School of Accountancy in the College of Business at Mississippi State University. Dr. Watson has published more than 20 articles in top accounting and business journals including Accounting Horizons, Advances in Management Accounting, Internal Auditor, Issues in Accounting Education, Journal of Accountancy, Journal of Information Systems, MIS Quarterly, Research in Accounting Regulation, and Strategic Finance. She was co-author of the 2004 monograph “The Pervasive Impact of Information Technology on Internal Auditing” for the Institute of Internal Auditors Research Foundation.

In addition to being an award-winning teacher of accounting information systems, Dr. Watson was also inducted into Judy and Bobby Shackouls Honors College in 2010. Since 2005, she has served as newsletter editor for the Information Systems Section of the American Accounting Association. In 2008, she was awarded the American Accounting Association’s Information Systems Section Outstanding Service Award. She has also served as associate editor for AIS Educator Journal and is now on the editorial review board. She is currently the graduate coordinator for the Adkerson School of Accountancy’s Master of Taxation (MTX) and Master of Professional Accountancy (MPA) programs.

Dr. Watson’s degrees include a B.B.A. in accounting from the College of William and Mary, an M.B.A. in information systems and accounting from the University of Texas at Austin, and a Ph.D. in accounting from the University of Texas at Austin.
Robert Van de Graaff Randolph is a doctoral student in management in the College of Business at Mississippi State University. He received his B.B.A. and M.B.A. from the University of New Mexico and entered the doctoral program in the fall of 2010. During his time at MSU, Robert has primarily worked with the Center of Family Enterprise Research. His research interests include the study of social pressures and multi-level exchange norms in the study of family business, strategic management, and entrepreneurship.

His research on these topics has been published in Human Relations and the Journal of Management, Spirituality, and Religion. He has presented his research at regional, national, and international conferences, including the Academy of Management, Southern Management Association, United States Association for Small Business and Entrepreneurship, and the Family Enterprise Research Conference. His conference presentations have resulted in two best paper awards and a paid research fellowship from the Family Owned Business Institute.

Robert is a senior doctoral candidate, and his dissertation “The Multi-Level Development of Organizational Kinship in Socioeconomic Collectives,” is expected to be proposed this spring. Robert is expected to defend his dissertation in the spring of 2014.
Parker Stewart | Undergraduate Student  
*College of Business*

Parker Stewart is currently a senior pursuing a B.A. in management with an emphasis in entrepreneurship. He is set to graduate summa cum laude in May 2013.

Parker has more than four years of experience in the Mississippi Air National Guard. His current rank is senior airman, and he is eligible for promotion to staff sergeant in April. The military has provided him with unique opportunities to display his leadership abilities. During technical school for his military occupation, he was the head Airman Leader directly responsible for over 700 other airmen. In 2012, he won Airman of the Year for the entire state of Mississippi.

Parker works in the Entrepreneurship Center in McCool Hall on campus, serving as the liaison between students who want to start a company and the experts they need to move their companies forward by connecting them with MSU faculty members, other student entrepreneurs, and entrepreneurs in the community.

Parker is also the co-founder of the Entrepreneurship Club (eClub) at MSU. This organization’s main purpose is to create an environment for student entrepreneurs to connect with one another and seasoned entrepreneurs who can mentor them to success. Founded in January 2012, the eClub has grown from only six members to 35 active members representing 20 different start-up companies with 14 faculty advisors. With the help of sponsors like Dean Sharon Oswald and Rodney and Allison Pearson, the eClub has raised $12,000 to completely renovate a room in McCool that will be the embodiment of the entrepreneurship culture the eClub is working to achieve.

Night & Day Vending is the first brainchild seen into fruition from Parker’s passion for entrepreneurship. Night & Day distributes breathalyzer vending machines to bars and restaurants so that people can make a better decision about whether to drink and drive. Night & Day is the exclusive distributor of the top machine in the industry for the entire state of Mississippi. Parker has competed in business plan competitions with Night & Day all over the U.S., winning one and placing in three more. He is also currently working on another start-up company with his parents to bring to market what they brand as, “The Grey Poupon of Salsa.”

Parker has many goals in life that he strives to achieve. He will one day be fluent in Spanish, German, Chinese, and other languages in order to better communicate with cultures across the globe. In the meantime, an MBA from Stanford University is also high on the priority list.
Dr. Stamatis Agiovlasitis received a bachelor’s degree in physical education and a master’s degree in exercise science from Queens College in New York City. Then, he worked for several years as an exercise professional in clinical settings, corporate fitness, and athletics. Later, he completed a doctorate in movement studies in disability under the mentorship of Dr. Jeff McCubbin at Oregon State University. His doctoral research examined the physiological and mechanical aspects of walking in people with Down syndrome.

Dr. Agiovlasitis then joined Dr. Bo Fernhall’s lab at the University of Illinois at Urbana-Champaign as a post-doc. Under Dr. Fernhall’s mentorship, he conducted research in physical activity, physical fitness, and cardiovascular function in apparently healthy people and people with pathologies such as Down syndrome, multiple sclerosis, spinal cord injury and attention-deficit hyperactivity disorder.

Dr. Agiovlasitis joined the Department of Kinesiology at Mississippi State University in the fall of 2009. Since then, he has formed several research collaborations with researchers from MSU, but also from other universities. He continues to study physical activity and health in people with disabilities, especially those with Down syndrome.

Dr. Agiovlasitis’s research has resulted in numerous peer-reviewed publications and presentations at national conferences. He is very enthusiastic about his research in people with disabilities. With his research, teaching, and service, Dr. Agiovlasitis hopes to help alleviate the disparities in physical activity and health that persons with disabilities experience.
Lorie White is the business manager for the College of Education at Mississippi State University. She is currently working on her bachelor’s degree in interdisciplinary studies with emphasis in business technology and management. She has been nominated for the Zacharias Distinguished Staff Award on numerous occasions and she recently received the Betty Purvis Staff Award for the College of Education.

Lorie is also a member of the Women in Higher Education Mississippi Network and the National Council of University Research Administrators. She has served Mississippi State in numerous capacities of the past 20 years of employment such as Staff Council, Service Dawgs, MSU Move-In-Day, and MAFES Supervisory Workshop Planning Committee.

The College of Education at Mississippi State University serves six academic departments and six research units serving faculty, staff, students and alumni.
Roland Webster is a native of Greenwood, where he attended Pillow Academy. He participated in football and track and field throughout junior high and high school. While graduating in the top of his class with highest honors in 2008, he was also inducted into the hall of fame. In the fall of 2008, Roland attended Mississippi State University majoring in kinesiology with a concentration in clinical exercise physiology. While a freshman, he was hired as a fitness assistant and personal trainer at the Joe Frank Sanderson Center and continued working there throughout graduate school. As a senior, he contributed to research under Dr. Stamatis Agiovlasitis. The study was designed to determine if people preferred to walk at their most energetically efficient speed at different grades. Roland graduated in the spring of 2012 with his Bachelor of Science in kinesiology with a 3.86 GPA. He then pursued a Master of Science in exercise physiology and he received a graduate teaching assistantship. He has been teaching the undergraduate exercise physiology labs and physical activity courses for the Kinesiology Department. As a graduate student, he conducted research under Dr. Agiovlasitis. The aim of the study was to determine if accelerometers—a convenient and easy method to measure energy expenditure—are reliable in estimating the intensity of physical activity. They have collected data from more than 30 individuals and the results will be submitted for presentation. Roland is scheduled to graduate with his master's degree in the spring of 2013. He has recently been accepted in the doctor of physical therapy degree program at Emory University starting in June of 2013.
Jennifer Cooper, a native of Ackerman, is a senior majoring in kinesiology with a concentration in clinical exercise physiology. While at Mississippi State, she has been actively involved on campus and in the community. She is a member of the Student Association, Alumni Delegates, Chi Omega Sorority, Lambda Sigma Honor Society, Exercise Science Honor Society, Phi Kappa Phi Honor Society, and Student Conduct Board. She has given back to the community through her service to the Make-A-Wish Foundation, Special Olympics, Relay for Life, Salvation Army, and Palmer Home for Children. She has also volunteered as a Brickfire tutor and assistant little league softball coach.

As a sophomore, Jennifer began working for the Mississippi State Extension Service. She worked in the Computer and Application Services Department as a member of the Distance Education group. Since her junior year, Jennifer has performed research under the guidance of Dr. Stamatis Agiovlasitis. During this time, she has had the opportunity to work on projects such as Energetic Optimization During Graded and Level Walking as well as studies that involve special needs children at the T.K. Martin Center and 4-H Therapeutic Riding and Activity Center. Following her junior year, Jennifer was selected as a Summer Undergraduate Research Fellowship recipient. In addition to receiving this fellowship from the Shackouls Honors College, she also received a scholarship from the College of Education to pursue her summer research project. Jennifer has recently presented her research at Mississippi State’s Spring Undergraduate Research Symposium.

Upon graduation in May, Jennifer plans to attend the University of Mississippi Medical Center where she will pursue a doctorate in physical therapy.
Dr. Pedro Mago is an associate professor of mechanical engineering at Mississippi State University, where he holds a Tennessee Valley Authority Professorship in Energy Systems and the Environment. He received his master’s and Ph.D. degrees from the University of Florida. His research has been on energy systems and he is currently focused on combined heat and power (CHP) systems, building energy simulation, and waste heat recovery technologies. He has been principal investigator and co-principal investigator on several projects totaling over $12 million.

Currently, Dr. Mago serves as director of the Micro-CHP and Bio-Fuel Center at Mississippi State University and co-director of the US DOE Southeast Clean Energy Application Center. He has authored 74 archival journal articles, 36 conference papers, seven book chapters, and one book. He has served as major professor for 10 M.S. and 10 Ph.D. students, and has directly involved 11 undergraduate students in his research program.
Mohsen Eshraghi received his bachelor’s and master’s degrees in materials engineering in 2006 and 2009, respectively. After a short experience in industry, he entered the Ph.D. program in the Bagley College of Engineering’s Department of Mechanical Engineering in 2010. Currently, he is a Ph.D. candidate and graduate research assistant at the Center for Advanced Vehicular Systems working under Dr. Sergio Felicelli’s advising.

Mohsen is the lead student working on the NSF funded project “Modeling the Solidification Microstructure in Laser Deposition Processes.” His research includes developing a computational model of dendritic solidification using a novel technique based on the lattice Boltzmann and cellular automaton methods. This technique has the particular feature of being suitable for massively-parallel supercomputers due to its high scalability up to a large number of processors. This capability has allowed the simulation of large arrays of dendrites with micro-scale resolution, significantly advancing the state of the art. His work was recently featured in the 2012 Research Windows magazine of the MSU Office of Research and in the 2012 CAVS Annual Report.

Mohsen has written 10 journal articles and has 11 conference papers/presentations during his academic career. His student performance has also been outstanding, with a 4.0 GPA in all courses. Mohsen’s academic performance was recognized by the BCoE through their doctoral fellowship during 2011 and 2012.

In 2011, Mohsen was selected by NSF to attend the European-U.S. Summer School on HPC Challenges in Computational Sciences. During the present semester, he has been the instructor of record for ME3403: Materials for Mechanical Engineering Design, where he is in charge of a class of more than 60 students.

Mohsen’s research interests are in the area of Solidification modeling, computational materials science, physical metallurgy, heat treatment and welding.
Ankit Arya, is a senior computer science major at Mississippi State University. Born in Bhopal, India, he was inclined to study computer science during the 10th grade. At Mississippi State, he has been conducting research in computer vision and machine learning, mentored by Dr. Cindy Bethel from the Department of Computer Science and Engineering and Dr. Derek Anderson from the Department of Electrical and Computer Engineering.

Ankit’s first hands-on research experience was during his junior year, as part of the Summer Undergraduate Research Fellowship Program at the California Institute of Technology. He worked on developing a data analysis software for a robotic adaptive optics telescope. After that, he became involved in computer vision and machine learning research with the inspiration coming after taking courses on those topics.

At Mississippi State, his research has been to design a thermal vision system for people detection to support SWAT team members operating in challenging environments. He has been honored for his research at the MSU Undergraduate Research Symposium, as well as Louisiana State University’s Undergraduate Research Conference. He has also been selected to present his research at the National Conference on Undergraduate Research 2013, and Automatic and Target Recognition, Defense and Security Conference, SPIE 2013.

He enjoys doing research, and has decided to pursue doctoral studies in computer science at Stony Brook University this fall.
Dr. Jim Aanstoos is an associate research professor in the Geosystems Research Institute at Mississippi State and an adjunct in the Electrical and Computer Engineering Department. His research is focused on image processing and pattern recognition for applications of remote sensing.

Recent research activities include the application of synthetic aperture radar and multispectral imagery to levee vulnerability assessment, evaluation of soil moisture from active and passive microwave sensors, and satellite precipitation estimation. He has engaged in several international collaborations, including leading study abroad programs to the University of Surrey in England, collaborative research with the German Aerospace Center, and a National Science Foundation funded project that collaborates with groups from the Netherlands, France, and Bangladesh on research using remote sensing to support multi-scale earthen levee monitoring.

Since arriving at MSU in 2006, Dr. Aanstoos has authored 30 refereed publications and helped secure more than $3 million in research funding.

He earned a B.S. in electrical and computer engineering and M.E.E from Rice University, and a Ph.D. in atmospheric science from Purdue University.
Lee Hathcock is a Mississippi State alumnus with a degree in computer engineering. He earned both his bachelor’s and master’s degrees from MSU, and is currently working on a Ph.D. under Dr. J.W. Bruce. He has taught labs for several years as a graduate student, including Embedded Systems, Microprocessors, and Intro to VLSI courses. He originally hails from Stewart.

Current projects include:

• Hyperspectral camera calibration routines (post-processing imagery to correct for spectral, spatial, and radiance calibration) for USDA aflatoxin detection project.
• Hurricane debris models, primarily involved in automated download and processing of all data associated with generating damage models associated with hurricane-force winds and rain intensity. Also tweaking the models to improve accuracy and speed of processing.
• Ph.D. research (satellite sensor network modeling) — Working on a simulator to model a satellite sensor network (similar to ad-hoc or wireless sensor networks, but applied in space to constellations of satellites).

Past projects include:

• Small satellite project, primarily image processing in MATLAB, for creation of DMC satellite surface reflectance product by cross-correlation to MODIS data. Automation of MODIS processing through Python, effectively recreates what the IPOPP package does (written before the program was available to us, and still being used).
• Balloon tracking project. Work tangentially related to sensor network research with Dr. J.W. Bruce, using Python scripts to parse APRS radio packets received through a Yagi antenna, determine the position, and use a GS-232 antenna controller to keep tracking a balloon. Such a system could, to some degree, emulate a more ad-hoc nature satellite network.

Lee’s research interests include wireless sensor networks, system modeling, image processing, embedded systems and probability and statistics.
Marlene Langford has worked as the data coordinator in the Office of Sponsored Programs Administration since December 2006, and will soon complete her 15th year at Mississippi State University. She enjoys working in SPA and feels blessed to work with those she considers the “best of the best” at MSU. The workload in SPA, while stressful at times, can also be extremely rewarding, as it helps to secure MSU’s standing as a major research university. Knowing that the reports she prepares are used in diverse ways, she attempts to provide the greatest amount of detail possible, and considers no task unimportant.

Marlene has been married for over 32 years to Wayne Langford, an employee of the Turf Research Program here at MSU. They have three children and four grandchildren. Her family has multiple ties to MSU, as she, her husband, and younger daughter are all employees, both her older daughter and daughter-in-law hold degrees from MSU, and her son met his wife while a student here, proposing to her outside the Chapel of Memories.
Lanford E. Porter Jr. is from Jackson and is a graduate of Forest Hill High School. At Forest Hill, he was a four-year member of the National Honor Society, and Who's Who Among High School Athletes. While excelling in the classroom, he was also an active participant in sports. He played football and was privileged to play varsity baseball during his four years of high school.

After graduating, he attended Tougaloo College in Jackson where he earned a bachelor’s degree in psychology. During his undergraduate years, he participated in many leadership positions. Some of these positions included French Club vice president, Student Government Association representative, and co-captain of the baseball team. Porter is currently a graduate assistant at Mississippi State University Sponsored Programs Administration, where he serves as the sub-contract administrator in the sub-award unit. He is in his last semester of graduate school at MSU where he is pursuing his master’s degree in public policy and administration.

Lanford currently serves as a member of the Pi Alpha National Honor Society for Public Affairs and Administration. After graduation, Lanford plans to begin his career with the federal government in healthcare administration. His ultimate career aspiration is to one day become a director of hospital administration.
Dr. Daniel G. Peterson is director of Mississippi State University’s Institute for Genomics, Biocomputing and Biotechnology, a scientist with the Mississippi Agricultural and Forestry Experiment Station, and professor in the Department of Plant and Soil Sciences. His research is focused on exploring the structure and evolution of eukaryotic genomes using genomic, cytogenetic, molecular biology, and computational biology techniques. By elucidating and comparing the sequences of genes and repeat sequences from a diverse group of organisms he hopes to illuminate trends in molecular evolution and discover sequences responsible for economic and adaptive traits. Such research may ultimately lead to agricultural plant/animal improvement through marker-aided selection strategies and/or genetic engineering.

Additionally, Dr. Peterson is investigating repetitive DNA sequences and their role in genome evolution. By integrating cytological, molecular, and genomic data, he is working to illuminate relationships between DNA sequence, chromosome structure, gene expression, and recombination.

Dr. Peterson is a member of an international research team analyzing cotton genes, chromosomes and their evolution. Last December, their work was published in Nature. Recently, he and the team received the 2012 Cotton Biotechnology Award from the National Cotton Council of America and Cotton Incorporated. The award recognized their pioneering efforts over the past 12 years to map the genetic structure of the ancestors of upland cotton. Their work culminated in developing a “gold standard” genome sequence of Gossypium raimondii. Dr. Peterson said the sequence allows researchers to learn about the differences between individual plants and between species and how these differences affect the plants’ structure and function.

A native of Durango, Colo., Dr. Peterson received his B.S., M.S., and Ph.D. degrees from Colorado State University.
Annual Research Awards Banquet

Monday, April 29, 2013