

worked with instrumentation analysis and technology, control system design and management, computer network design, software system design, finite element analysis, thermal-hydraulic modeling, reactor instrumentation & control system design and installation.

#### **TODD CLAPP**

**Manufacturing Engineer**  
**Principle Manufacturing Engineer**  
**AESA Antennas and Systems**  
**Raytheon**

Mr. Todd Clapp has worked in engineering and product management positions for 3M, Cognex, and Raytheon doing development and production of laser- and camera-based measurement and inspection systems and airborne radar systems. He has been awarded two patents in signal routing and optical measurement. His formal training is in electrical engineering and technology management, but he has been involved in electrical and electronic design, optical systems development, mechanical design, and software as well as process improvement and business development activities. He earned a B.S. in Electrical Engineering from Mississippi State University and an M.S. in Technology Management from the University of Alabama in Huntsville.

#### **STEPHEN WILKINSON**

**Meteorologist**  
**Warning Coordination Meteorologist**  
**National Weather Service, Jackson MS**

Mr. Steve Wilkinson has worked in 5 different locations for the National Weather Service over the past 20 years. He applied scientific principles, including atmospheric physics and thermodynamics, to forecast and warn people of hazardous weather for over 13 years. Now, he works with emergency managers, the media, and other groups to increase weather preparedness across the region.

#### **NEIL BARNES**

**Oil and Gas Geologist**  
**Exploration Manager**  
**Tellus Operating Group, LLC**

Mr. Neil Barnes is a petroleum geologist and has explored for oil and gas in the southeast US, Appalachian and Michigan Basins, and Colombia, South America. As a petroleum geologist he sees things others have never seen before and tries to understand the subsurface, often with very little real data!

#### **LAURA SOREY AND HUNTER BERCH**

**Geologist**  
**Graduate Students**  
**Department of Geology and Geophysics**  
**Louisiana State University**

Miss Laura Sorey and Mr. Hunter Berch are graduate students working on research projects for their masters degrees in geology while training to become petroleum geologists. This training requires a background in geology, engineering, chemistry, biology, physics, and even computer coding as they learn to evaluate oil and gas reserves through a variety of techniques. Many geology students go on to work for international companies like Chevron, BP, Shell, Conoco, and ExxonMobil as petroleum geologists or geophysicists.

#### **JAMES B. HARRIS, PH.D.**

**Geologist**  
**Professor and Chair**  
**Department of Geology**  
**Millsaps College**

Dr. Jamie Harris is currently Professor of Geology at Millsaps College, where he has taught for 17 years. In addition to teaching introductory geology, he teaches courses in geophysics, structural geology, and geologic mapping. Before coming to Millsaps, he worked on an earthquake hazards project at the Geological Survey of Canada in Vancouver. He received his Ph.D. from the University of Kentucky, and his research interests are in geophysics and geologic hazards

#### **STAN GALICKI, PH.D.**

**Geologist**  
**Associate Professor of Geology**  
**Millsaps College**

Dr. Stan Galicki is an Associate Professor of Geology at Millsaps College with eight years experience in petroleum exploration with Unocal. His research interests include wetland biogeochemistry, paleoenvironmental interpretation, dendrochronology, and sustainable construction. Stan has accompanied hundreds of students on field courses and research internationally in central Mexico and the Yucatán Peninsula, Turkey, Albania, and Australia. Domestic destinations include the Pacific Northwest, Yellowstone National Park, Prince of Wales Island, Alaska, the Florida Keys, the Appalachian Mountains, the Ozark and Ouachita Mountains, Big Bend National Park, Carlsbad Caverns, and numerous trips within the state of Mississippi.



[www.jacksonprep.net](http://www.jacksonprep.net)

# JACKSON PREP SCIENCE SYMPOSIUM

January 30, 2013

**JAMIE R. CLAY, D.M.D.**

**Clinical Associate Professor/Periodontist  
University of Mississippi Medical Center  
School of Health Related Professions**

Dr. Jamie Clay is a course coordinator and lecturer for Periodontics I and II which cover the anatomy of the periodontium around the teeth, the histology of the periodontium, the microbiology of which pathogenic bacteria cause the disease, the immune system and how the host response affects disease, and the diagnosis and treatment of periodontal disease. In addition to lectures, she covers student clinics where they are actively treating patients and get to apply the knowledge that they have gained from their classroom lectures.

**CATHERINE CARTER SLEDGE, D.M.D.**

**Dentist and Co-owner  
Carter Sledge Family Dentistry**

Dr. Catherine Sledge works in dentistry, a multi-faceted field in which all types of science are utilized on a daily basis – biology, chemistry, and engineering, to name a few. Dentists are oral physicians, as well as architects on a very tiny scale. One millimeter can be a dealbreaker for a dentist! Dr. Sledge recommends dentistry if you are a detail-oriented, science-loving person who appreciates instant gratification.

**RON CALOSS, M.D.**

**Oral & Maxillofacial Surgeon/Associate Professor  
Department of Oral and Maxillofacial Surgery and Pathology  
University of Mississippi Medical Center**

Dr. Ron Caloss is an Oral and Maxillofacial Surgeon who cares for patients with problem wisdom teeth, facial pain, and misaligned jaws. He treats accident victims suffering facial injuries, places dental implants, cares for patients with oral cancer, tumors and cysts of the jaws, and performs facial cosmetic surgery.

**BETHANY POWERS PHARM.D.**

**Pharmacist  
Kroger Pharmacy**

Dr. Bethany Powers is a staff pharmacist with Kroger Pharmacy at Madison on Highway 51 and has been employed there for over 10 years. She provides traditional dispensing services, patient counseling, immunization services, and medication therapy management (MTM). She graduated from Jackson Prep in 1994 and graduated from the University of Mississippi School of Pharmacy in 2001.

**SHIRLEY HOGAN, PHARM.D.**

**Pharmacist  
University of Mississippi School of Pharmacy,  
Department of Pharmacy Practice  
Affiliate Associate Professor in Pediatrics, School of Medicine  
UM School of Pharmacy  
University of Mississippi Medical Center**

The field of Pharmacy has a wide array of options for career choices. Pharmacists assist other healthcare providers choose the correct medication for a specific patient and give that patient the information needed to use the medication appropriately. The Doctor of Pharmacy degree will allow a student to practice as a Community Pharmacist filling prescriptions and providing medication information or a Hospital Pharmacist providing oral medications as well as intravenous preparations and making rounds with the Healthcare Team. There are also more specialized options such as Oncology Pharmacy, Nuclear

Pharmacy, and with extra training through a Residency and/or Fellowship, there are research options and academic possibilities. Dr. Hogan has combined academics with practice and teaches student Pharmacists as well as practices pharmacy in Pediatric Oncology at the Medical Center – Blair E. Batson Hospital for Children.

**BETTY L. HERRINGTON, M.D.**

**Medical Doctor  
Associate Professor, Department of Pediatrics, Division of Pediatric Hematology/Oncology  
Director, Pediatric Neuro-Oncology  
Director, Pediatric Hematology/Oncology Fellowship Training Program  
The Children’s Cancer Center  
Batson Children’s Hospital  
University of Mississippi Medical Center**

Dr. Betty Herrington is a pediatric neuro-oncologist who will discuss post-graduate training in medicine, residency training, fellowship training, and sub-fellowship training. She will also present information on research in pediatric cancer and sickle cell disease.

**JAMES G. WILSON, M.D.**

**Professor of Physiology and Biophysics  
University of Mississippi Medical Center**

Dr. James Wilson attended Rice University and the University of Mississippi Medical Center (UMMC), followed by post-doctoral training in Internal Medicine and Rheumatology at Duke University. Thereafter, he did research training in the laboratory of Dr. Douglas Fearon at Harvard Medical School, where he joined the faculty to become an Assistant Professor of Medicine. He returned to Mississippi as a faculty member at UMMC and currently works full-time on scientific research into the role of genetics in cardiovascular disease and related disorders.

**LEE BIDWELL III, PH.D.**

**Research Doctor/Assistant Professor  
Department of Neurology  
Associate Member, UMMC Cancer Institute  
University of Mississippi Medical Center**

Dr. Lee Bidwell is developing new drugs and new drug carriers for treatment of various diseases, ranging from cancer to diseases of the eye to preeclampsia, in his lab. The goal is to develop drug carriers to improve delivery of drugs to the desired site within the body and as a result, decrease their side effects. His career path includes a Bachelor’s degree in Biochemistry from Ole Miss, a Ph.D. and postdoctoral fellowship in Biochemistry from UMMC, and now is an Assistant Professor of Neurology at UMMC.

**ROBERT COX, M.D., PH.D.**

**UMC Poison Control  
Director, Mississippi Poison Control Center  
Professor, University of Mississippi Medical Center**

Dr. Cox started his career as an environmental and analytical chemist. He majored in biology and chemistry at Augustana College. He received his Ph.D. in Analytical Chemistry from the University of Iowa, studying environmental pollution with an interest in how pollutants affect humans. He went to medical school at the University of Texas Southwestern and also trained in Toxicology. Dr. Cox currently runs the Mississippi Poison Control Center and does legal consulting on human chemical exposures, drug and alcohol driving, and drug toxicity. This work requires the integration of chemistry, toxicology, and emergency medicine.

**VEERESH MICHAEL., M.S. DABR**

**M.D./Ph.D. Radiologist  
Chief Medical Physicist  
St. Dominic Hospital Cancer Center**

Mr. Michael works as a medical physicist in healthcare: commissioning, calibrating, and overseeing safe operation and maintenance of systems used for looking at or measuring what is happening in the body when radiation is in use for diagnosis and treatment of disease. Quite typically, this involves use of external beam radiation, x-ray, ultrasound, light in various frequencies, laser Doppler blood flow measurement, magnetic resonance imaging and nuclear medicine.

**KAREN E. FIFE, FNP-C**

**Electrophysiology Nurse Practitioner  
Department of Medicine, Cardiology  
University of Mississippi Medical Center**

Ms. Karen Fife is a nurse practitioner, which is an advanced practice nurse who helps with all aspects of patient care, including diagnosis, treatments, and consultations. Nurse practitioners work in both inpatient and outpatient settings and can perform independently or as part of a treatment team. Generally, nurse practitioners perform the important task of educating patients about preventative care and the prescribed treatments. They may also conduct physicals, order tests and serve as a patient’s primary healthcare provider. In Mississippi, most NPs are able to prescribe medications. Currently, a nurse practitioner must have a Master’s degree to practice.

**KEVIN STUMP**

**Nurse  
Chief Executive Officer  
Mississippi Organ Recovery Agency**

Mr. Kevin Stump has over 30 years experience in the field of organ and tissue donation and transplantation. Mississippi Organ Recovery Agency is one of the leading donation organizations in the country. This growing field involves not only the immunogenetics of keeping the recipient of the transplanted organ from rejecting the transplanted organ but also ways to improve organ function by placing the organ on a perfusion pump ex-vivo.

**KATIE LEECH EBERS, D.V.M.**

**Associate Veterinarian  
Banfield Pet Hospital**

Dr. Katie Ebers is a private practitioner at a local hospital where she performs preventative care, surgeries, and diagnosis of illnesses in small animal patients. She earned a Doctorate of Veterinary Medicine as well as a Master’s of Veterinary Science with an emphasis in Epidemiology. Dr. Ebers is particularly interested in public health medicine at the governmental level and has a strong passion for disaster animal response after major events such as Hurricanes Katrina and Sandy.

**ALAN MUMBOWER**

**Wildlife Biologist/Conservation Educator and Recruiter  
South Region Hunter Education Coordinator  
Mississippi Department of Wildlife, Fisheries, and Parks**

Mr. Alan Mumbower started at Mississippi State University with a degree in Wildlife Science., which required coursework in biology, chemistry, zoology, ornithology, and dendrology. He started working at the Mississippi Department of Wildlife as a conservation associate biologist and now coordinates the conservation recruitment and education as well as the hunter education for the state.

**GREG GRAEBER, M.E.**

**Marine Biologist  
Marine Educator  
Dauphin Island Sea Lab**

Mr. Greg Graeber works in Marine Science, a career that links many of the sciences together from Biology to Chemistry to Geology to Physics. As a marine science educator, he has a broad understanding of many of these fields, and the expertise on any one subject lies with his co-worker researchers. Being able to work outside at the beach, on a beach, or in the field is truly what makes this career so rewarding.

**CHRIS WISE, D-ABC**

**Forensics  
Senior Forensic Scientist  
Controlled Substance Identification Unit  
Mississippi Crime Laboratory**

Dr. Chris Wise analyzes items of evidence for the presence of controlled substances utilizing forensic analytical instrumentation. He also provides expert testimony to the court systems and trains law enforcement officers in the collection of drug evidence.

**DAVID WHITEHEAD, D-ABC**

**Forensics  
Section Chief and Forensic Scientist  
Trace Evidence Section  
Mississippi Crime Laboratory**

Dr. David Whitehead analyzes items of trace evidence collected from crime scenes utilizing various forensic analytical techniques and instrumentation. He also provides expert testimony to the court systems and trains law enforcement officers in the collection and preservation of forensic evidence.

**CHRIS MAGGIO, PH.D.**

**Physics Professor - Lightning Research  
Chair, Department of Computer Science and Physics  
Mississippi College**

Dr. Chris Maggio teaches Physics and Engineering Science courses at Mississippi College. He also supervises undergraduate research projects on the subject of thunderstorm electricity.

**RITA PAYTON, CMA/CFM AND**

**JEREMY REMMEL  
Chief Financial Officer  
Manufacturing Manager  
McNeely Plastics**

Ms. Rita Payton has 30+ years of financial, audit, and managerial experience and approximately 15 years in the plastics industry. Rita has a Bachelor’s Degree in Accounting and has both CMA (Certified Management Accountant) and CFM (Certified Financial Manager) certifications.

Mr. Jeremy Remel has 20+ years operational and managerial experience in blown plastic film, printing, and converting industries. He has completed extensive training from both SPI (Society of the Plastic Industry) and AMA (American Management Association).

**JEFF RICHARDSON, BSEE**

**Nuclear Engineer  
Director of Major Projects & Alliances  
Entergy Nuclear**

Mr. Jeff Richardson earned his electrical engineering degree from the University of Arkansas. During his career at Entergy he has