Featured Articles

pg. 2

“DBS”
This newsletter is made possible from the generous contributions of MUSC’s neurosciences faculty and staff. The success of this publication is dependent upon this support. Thank you for your interest, time and information. For inquiries, suggestions or submission information please email vought@musc.edu.
Neurosciences Featured Events

MARCH 28-29, 2014 - 13TH ANNUAL PEDIATRIC NEUROSCIENCES UPDATE
The 13th Annual Pediatric Neurosciences Update conference will be held at Kiawah Island, SC. This course is designed for practitioners who are responsible for treating children with neurological, neurodevelopmental, and neurobehavioral disorders. The 2014 conference will again include the latest in the management of these conditions, this year focusing on the neuroanatomy of developmental disorders, ADHD diagnosis/treatments, the new capabilities of neuroimaging, neuromuscular disorders and treatment, update on concussion guidelines and testing, and epilepsy diets treatments. There will be a sub-specialty symposium all day on Saturday on neurogenetics, including mitochondrial disease, new genetic panels versus gene sequencing for diagnosis, ethics related to genetic counseling, and current treatments for neurogenetic diagnoses. For more information, visit www.musc.edu/cme.

MARCH 29, 2014 - LIVING WITH PARKINSON’S DISEASE SYMPOSIUM 2014
Join us for the Living with Parkinson’s Disease Symposium 2014. This symposium is for patients and families living with Parkinson’s Disease. Sessions will be led by members of the MUSC Movement Disorders Program team and invited guest speakers. This event will be held at the Crowne Plaza Hotel in Charleston, South Carolina. For questions and additional information, please call the Movement Disorders Program at 843-792-7262 or email carbonsj@musc.edu.

MARCH 29, 2014 - MDA MUSCLE WALK IN CHARLESTON
The MDA Muscle Walk® is a series of fun, non-competitive local walks held across the country, and it is the largest event of its kind in the United States. Join team MUSCNeuro this March at the Charleston RiverDogs Stadium to help make a difference. For more information email danger@musc.edu or visit www.walk.mda.org.

MARCH 29, 2014 - WALK MS: CHARLESTON, SC
Walk MS connects people living with MS and those who care about them. It is an experience unlike any other - a day to come together, to celebrate the progress we’ve made and to show the power of our connections. Every connection counts. Register now, connect with others and start fundraising today. For more information email rodddf@musc.edu.

APRIL 26, 2014 - PUTTING FOR PARKINSON’S
Save the date for the 6th annual Coach Tim Touchberry Putting for Parkinson’s Golf Tournament, Dinner, and Auction. This event was started six years ago to raise awareness of and to help fund research for Parkinson’s Disease in honor of Coach Tim Touchberry. For more information, visit www.puttingforparkinsons.com.

EPILEPSY: BEYOND THE DIAGNOSIS - APRIL 26, 2014
This event will take place at Sterett Hall Auditorium on the Old Navy Base in Charleston, SC. This free event, for patients and family members, discuss a variety of epilepsy topics. It includes speakers Dr. Begley and Dr. K.L. Parko. For more information, visit www.musc.edu/neurosciences/events.

MAY 15 & 31, 2014 - BRAIN TUMOR ACTION MONTH
During the month of May, the MUSC Brain & Spine Tumor Program hosts a series of events in Charleston, SC called Brain Tumor Action Month (BTAM). The purpose of BTAM is to raise awareness and convince others to join in the fight for an increase in funding for brain tumor research, and the development of and access to better treatments. All funds raised through BTAM events and activities will go directly to the MUSC Foundation Brain Tumor Research Fund, a 501c3 charity.

This year plans are underway for an Awareness Night with the Charleston RiverDogs (May 15) and a Benefit Concert (May 31). For more information visit www.musc.edu/btam.

MAY 22, 2014 - RESIDENTS RESEARCH REUNION DAY & DR. ROBERT J. ADAMS VISITING PROFESSORSHIP
Over the last several years The Department of Neurosciences has organized an annual “Neurosciences Resident Research Day”. It is an initiative to promote academic research among the residents and faculty. The residents and fellows of Neurology and Neurosurgery participate by presenting research projects. Faculty experts from the divisions of neurosurgery, neurology and basic neurosciences judge these presentations and award the participants.

Last year the Neurosciences Resident Research Day expanded to included a neurology alumni reunion, creating the new event “Resident Research Reunion Day”. This is an opportunity for the department to reunite alumni with current faculty and residents from the Department of Neurosciences for a day of presentations, food and fun. This year will feature Dr. Martin Samuels as the recipient of the 1st annual Robert J. Adams Visiting Professorship. For more information, visit www.musc.edu/neurosciences/events.
Traditionally, correcting problems with the spine has necessitated open back surgery, requiring a large incision (5-6 inches or longer), muscle dissection, and retraction to expose the spine. Surgeons had full access and visualization of the spine, but at the cost of significant tissue trauma and long recovery times. Many of the spinal procedures once done via open surgery are now being performed, with comparable outcomes, using minimally invasive surgical (MIS) techniques that require smaller incisions, resulting in less blood loss and disruption of muscle tissue. In addition to speeding recovery times, these techniques are associated with less scarring and a reduced risk of infection or wound breakdown.

Bruce M. Frankel, M.D., Professor of Neurological Surgery and Radiation Oncology in the Departments of Neurosciences and Radiation Oncology at MUSC, has helped pioneer the application of these MIS techniques, now almost commonplace for the surgical treatment of degenerative disk conditions, to the treatment of patients with metastatic spinal tumors (Figure) or with traumatic fractures to their thoracolumbar spine.

Dr. Frankel specializes in MIS techniques for the spine. Instead of exposing the spine to gain visualization and access, Dr. Frankel opens a limited portal, through which the exact spinal region of interest can be visualized with the aid of a microscope and through which specialized surgical instruments can be passed to perform the procedure. He makes a small incision off the midline of the back, much smaller than that which would be required for open surgery, and establishes a channel to the spine not by dissecting muscle but by dilating it. Once access to the appropriate region of the spine has been achieved using fluoroscopic guidance, an 18- to 24-mm port is inserted. The posterior approach minimizes complications by avoiding the transabdominal region and the chest.

The more rapid recovery times made possible by MIS techniques are particularly critical for cancer patients with tumors that have metastasized to the spine. These tumors can put pressure on the spine, leading to extreme pain as well as loss of mobility and neurological function. Surgery is one palliative option in these patients, helping to relieve some of these symptoms by removing or debulking the tumor. However, many of these patients are in the last months of their lives, and physicians and patients alike have had to weigh the benefits that could be gained through surgery (lessened pain, better ambulation) against the long recovery times required after open surgery. The availability of an MIS option tips that balance, because the same gains can be achieved with dramatically shortened recovery times. New approaches to minimally invasive spine surgery are being pioneered at MUSC to positively affect the outcomes of patients with complicated conditions involving the spine.

For the rest of this story visit: http://www.muschealth.com/pn/archive/index.html
Erick Gordon can crack a joke now. Most wouldn’t think much of that except his family and friends who watched the young adult’s personality and sense of humor disappear after a diagnosis of epilepsy in March 2007. Gordon, who had never had a seizure up until that time, began to have 30 grand mal seizures a month. It meant he couldn’t drive. He had to drop out of school. He lost his social life and felt his personality and everything important to him slipping away.

Gordon can smile about it now that he’s getting his life back. He has tried six medications to find out what works and volunteered to be in the NeuroPace RNS System Pivotal Clinical Investigation that was completed in May 2011. The responsive neurostimulation device received Federal Drug Administration pre-market approval last month. Gordon, 25, now has a girlfriend and plans to start back to school. He was one of the first to celebrate approval for the technology, as was his physician Jonathan Edwards, M.D., who is director of MUSC’s Comprehensive Epilepsy Program.

The new technology is part of the rapidly evolving field of neurostimulation, said Edwards, explaining that there are many different forms being used for a wide range of conditions from Parkinson’s disease to certain psychiatric conditions. What is different about this newly approved therapy is that it is responsive. Other forms have been used mostly one-directional, where a stimulus is used in the brain on and off throughout the day to either prevent a symptom or improve a symptom, but they don’t actually respond to neurological activity.

“This responsive neurostimulator is a very clever device. It’s essentially a small microprocessor that’s placed in the patient’s skull and a couple of small electrodes about the size of spaghetti are placed in a person’s brain at the source of the seizures.”

Neurosurgeons place the electrodes into the brain using stereotactic surgery where imaging data is correlated to a three-dimensional space so the electrodes can be placed with pinpoint accuracy at the site of the seizure activity. The NeuroPace device records electrical activity from the brain, and the patient has a laptop computer with a wand that can wirelessly download information from the device. Physicians can program it to detect the patient’s seizures, adjusting the methods of delivery and settings over time that best help the patient.

For the rest of this story visit: http://academicdepartments.musc.edu/pr/newscenter/2013/NeuroPace.html#UwuYrSj2uc9
Ann-Charlotte Granholm-Bentley, DDS, Ph.D., was awarded a $300,000 grant to study the development of Alzheimer’s disease in people with Down syndrome.

One of only three senior investigators whose work in this area is being funded through a joint grants initiative between the Global Down Syndrome Foundation, the Alzheimer’s Association, and the Linda Crnic Institute for Down Syndrome, Granholm-Bentley, professor, department of Neurosciences, and director of the Center on Aging, will be looking for Alzheimer’s biomarkers and identifying neuroprotective therapies.

Granholm-Bentley is delighted that this important subject has finally gained the attention it has so long deserved. “It is exciting that the work I have been doing for 15 years on the connection between Down syndrome and Alzheimer’s disease is finally being recognized and that this form of Alzheimer’s disease is now considered an important field of research by the Alzheimer Association and the NIH. There is much work to be done in this area and through the national focus group that I chair, we can make great strides together, in a short amount of time.”

In the U.S., approximately 6,000 babies are born with Down syndrome each year and it is estimated that 400,000 people are living with the condition. People with this syndrome have 47 chromosomes in their cells, rather than the usual 46 (23 pairs); no one knows what causes this anomaly during cell division.

“In the past, most people with this condition died before they reached their 30th birthday, due to complications from heart defects, seizures, leukemia, and pneumonia,” said Granholm-Bentley. “However, life expectancy has doubled over the last 30 years to age 60.”

As these patients lived longer, researchers began to notice a link to Alzheimer’s disease and determined that the accumulation of beta amyloid deposits begins much earlier in those with Down syndrome than in the general population. Granholm-Bentley reasons the duplicated chromosome may cause quicker growth of the substance in the brain because it carries the precursor protein for amyloid, and she is working to determine if an overabundance of the microscopic protein fragment is a single cause for the progression of dementia in Down syndrome patients, or if other factors, such as insufficient growth factors in the brain, oxidative stress or inflammation, play a role as well.

Through this grant, Granholm-Bentley will be able to aggressively study the complex genetic mechanisms shared by Down syndrome and Alzheimer’s disease. Research to decipher this connection holds a great deal of promise, as 15 years of studies in mice show that 100 percent of people with Down syndrome will display the brain pathology to develop Alzheimer’s disease, and 75 percent could go on to develop it, she said.

She proposes that because not everyone with Down syndrome develops dementia as they age, even when amyloid accumulates, determining what prevented Alzheimer’s disease in these patients will provide valuable clues that may translate to the general population and answer broader questions about Alzheimer’s disease.
Sometimes behaviors not only feel like the right things to do, they are proven to be the right things. In an exhaustive review of stroke mortality and treatment in the U.S., led by MUSC and the American Heart Association/American Stroke Association (AHA/ASA), researchers determined that stroke deaths dramatically declined in recent decades due to improved treatment and prevention.

A scientific statement published in the AHA/ASA journal Stroke provides further documentation that people can make changes to better manage and reduce their stroke risk. AHA/ASA commissioned the paper to discuss reasons why stroke dropped from the third to fourth leading cause of death.

The decline in stroke deaths is one of the greatest public health achievements of the 20th and 21st centuries,” said Daniel T. Lackland, Dr. P.H., chair of the statement writing committee and MUSC professor of epidemiology. “The decline is real, not a statistical fluke or the result of more people dying of lung disease, the third leading cause of death.”

Lackland credited public health efforts including lowering blood pressure and hypertension control that started in the 1970s as contributing to the change in mortality, as well as smoking cessation programs, and improved control of diabetes and abnormal cholesterol levels. Improvement in acute stroke care and treatment is associated with lower death rates.

“We can’t attribute these positive changes to any one or two specific actions or factors as many different prevention and treatment strategies had a positive impact,” Lackland said. “Policymakers now have evidence that the money spent on stroke research and programs aimed at stroke prevention and treatment has been spent wisely and lives have been saved.”

Lackland applauded the general public for efforts made to prevent strokes by addressing risk factors as simple as eating less salt to quitting smoking.

These efforts largely contributed to stroke deaths dropping in men and women of all racial and ethnic groups and ages, he said.

“Although all groups showed improvement, there are still great racial and geographic disparities with stroke risks as well as many people having strokes at young ages,” Lackland said. “We need to keep doing what works and to better target these programs to groups at higher risk.”

William Moran, M.D., director of the Division of General Internal Medicine & Geriatrics, sees this firsthand in his practice. He’s glad to see the study confirm the importance of making healthy lifestyle changes and how paying attention to getting enough exercise, maintaining a healthy weight and controlling medical risk factors such as blood pressure, blood sugar and cholesterol, is worth taking the time to do.

“This study shows wonderful progress in reducing stroke and resulting disability or death. We need to maintain momentum and view these healthy behavior changes not as a burden or a diet, but as essential lifelong changes to achieve a long healthy life for yourself and especially your family.”

Joint MUSC study shows decline in U.S. stroke deaths

1900’s

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Departmental Highlights

• Congrats to our Stroke Center for completing the recent Joint Commission survey with flying colors! Many thanks to the entire team, especially Perette Sabatino, RN and Dr. Christine Holmstedt, for their tremendous work and dedication to the stroke program. The JC surveyor said we are among the best. We look forward to becoming a Joint Commission Comprehensive Stroke Center soon! Great job team!

• Our Clinical Neurophysiology Lab (CNPS) has received a 5-year accreditation from ABRET for Long Term Monitoring. This is a wonderful achievement made even more impressive, when you realize that CNPS now has achieved all the available accreditations for the various modalities within their specialty: EEG, NIO (Neuro-Intraoperative monitoring), EMG/NCV, Intracranial and extracranial cerebrovascular testing, LTM long term EEG monitoring- EMU and ICU monitoring) making MUSC Neurophysiology the ONLY medical center in the United States, which concurrently holds all 5 major accreditations! Well done to the entire CNPS team and kudos for outstanding leadership by Dr. Jonathan Edwards and Mr. Adam Kornegay!

• The stroke team will be recognized in the next issue of US News and World Report Best Hospitals and at the 2015 International Stroke Conference for an average Door to Needle time during the period of July 2012 to June 2013 of 38 minutes, and as far we know --- the 3rd fastest time reported so far in the world! Achieving a Door to Needle time of 38 minutes is not an easy accomplishment, but our teamwork and dedication led us there. Massive Kudos to the entire team!

• Hearty kudos to all our speakers at the 1st inaugural Neurology for PCP conference. A review of the results from the survey of attendees revealed that 100% of them indicated the course met their expectations. Credit to the superb leadership of Dr. Paul Pritchard! Also we must congratulate Dr. Christina Vaughan for having the highest evaluation scores among all our faculty!

• The Movement Disorders Program was recently awarded a Michael J Fox grant entitled: “Validation of computer-based saccade measures as a sensitive, reliable, and freely available biomarker for tracking subtle neurocognitive changes in Parkinson’s Disease”. Dr. Travis Turner is PI on the project, Dr. Vanessa Hinson is Co-I. This is the second Michael J. Fox grant our Movement Disorders group has garnered in less than 2 years! Keep up the great work!

• Dr. Hyacinth Hyacinth, post-doc scholar in our Stroke Division, and mentee of Dr. Robert Adams, was recently awarded the 2013 American Journal of Hematology Young Investigator award for his paper entitled, “Frequent red cell transfusions reduced vascular endothelial activation and thrombogenicity in children with sickle cell anemia and high stroke risk”. This is a very notable honor indeed! Congrats to Dr. Hyacinth!

• Clinical Excellence Award Winners from Neurology for the month of October were: Dr. Mac Abernathy (Neuropsych resident PGY-3), and Dr. Christine Holmstedt. We all greatly appreciate both of you for your tremendous work ethic and dedication!

• Dr. Wayne Feng was recently awarded a prestigious American Heart Association Scientist Development Grant. Dr. Feng received a priority score of 1.43 and percentile rank of 5.36%. Simply terrific...well done!

• The inaugural MUSC Stroke and Comprehensive Cerebrovascular Update Conference was held on November 15, 2013. The event was very well attended (standing room only)...even though it was held on a Friday. Informal feedback from attendees was overwhelmingly positive. Massive credit to Dr. Christine Holmstedt who organized and led such an outstanding conference! We look forward to another successful event next year.

• The Stroke Program has yet again been awarded the 2013 Gold Plus Quality Achievement Award. Big kudos to the entire Stroke Team!

• Dr. Erin Sparks was recently awarded a 2014 American Academy of Neurology Annual Meeting Scholarship. Congratulations!

• Dr. Wenyu “Andy” Sun abstract entitled “First-time Seizure or Seizure-like Presentations in the US Adult Emergency Departments 2007-2010” has been accepted for a poster presentation at the American Academy of Neurology 66th Annual Meeting, April 26-May 3 in Philadelphia. The faculty mentors involved in the project and co-authors of the poster are Dr. Paul Pritchard and Dr. Anbesaw Selassie. Well done Dr. Sun!
Departmental News

Neuroscience Service Line Leader Employee Recognition Award

Congratulations to Cheryl Holderfield, Nurse Manager NSICU and Neuro Endovascular Surgery for receiving the Leader Employee Recognition Award for the Neuroscience Service Line. This award is presented one time a year at the annual holiday party. Cheryl received her award on December 20, 2013 at Halo Restaurant. Cheryl was selected for this award because of her dedication to MUSC and the profession of nursing. Cheryl serves as the District 4 Representative for the South Carolina Organization of Nurse Leaders (SCONL). She is responsible for coordinating and leading 4 educational meetings per year at a hospital within district 4. She also represents MUHA and SCONL on the SC Board of Nursing Practice and Standards Committee. This committee is responsible for developing and revising Nursing Advisory Opinions that guides practice within South Carolina. She is always upbeat, positive and “gets the job done”. She is quick at responding to all emails, phone calls and work related requests. Cheryl is an asset to the NSL and we thank her for her work to make a difference to our patients, staff and nursing profession.

MUSC offering Global Health Certificate Program

The reasons for placing more emphasis on global health education are numerous and transcend the needs of developing countries. As the world population becomes more mobile and diverse, maintaining a healthy domestic population becomes increasingly challenging and requires that all healthcare providers have greater knowledge of diseases that have typically occurred in remote geographical regions. Underserved, multi-cultural and foreign-born populations with inadequate health care are found throughout industrialized nations and their needs are often not sufficiently met by providers who undergo traditional training. Since the majority of students who take courses in global health and/or participate in overseas electives during training go on to devote their professional careers to a domestic endeavor, the major benefit of global health education for our students will be reflected in the high quality, culturally appropriate services that will be provided locally.

This continuing education certificate is available to MUSC students, staff and faculty; non-MUSC undergraduate and graduate students planning careers in health sciences; and any health care professionals in the community. For more information on this program visit: http://globalhealth.musc.edu/certificate-program-global-health
Featured Publications


Alumni Updates

New Alumni Website

The Department of Neurosciences now has a new Neurology Alumni Association and website. MUSC Neurology Alumni applies to all MUSC neurology residency graduates, MUSC neurology fellowship graduates, neurologists who attended MUSC for medical school, current/former MUSC Neurology faculty. As recommended by Dr. Pritchard, the Association will be called the O. Rhett Talbert MUSC Neurology Society after Dr. Talbert who founded MUSC Neurology and started its residency program.

Dr. O. Rhett Talbert founded the Division of Neurology at the Medical University of South Carolina. Through an NIH training grant, Dr. Talbert started the neurology residency at MUSC and obtained the original ACGME accreditation on October 17, 1959. Dr. Talbert was an alumnus of Wofford College and the College of Medicine at MUSC. He trained in internal medicine at the Medical College of Virginia and in neurology at the Massachusetts General Hospital.

The first resident in the MUSC program was Dr. Hiram B Curry, a native of Midville, Georgia and an alumnus of the College of Charleston and the College of Medicine (’50). After completion of the neurology residency in 1961, Dr. Curry completed a stroke fellowship at the Massachusetts General Hospital under C. Miller Fisher, M.D., and he returned to MUSC to join the faculty in neurology. He founded the Department of Family Medicine at MUSC and served as its first chair.

During the past 50 years over 150 residents have joined the program from every continent, including physicians from 24 countries and from 51 different medical schools in the United States. Members of the O. Rhett Talbert Society have forged successful careers in private practice and academic medicine throughout the United States and in multiple international sites. Visit the neurology alumni section of our site at: www.musc.edu/neurosciences/alumni

Alumni Special Event: Resident Research Reunion Day, May 22, 2014

Over the last several years The Department of Neurosciences has organized an annual “Neurosciences Resident Research Day”. It is an initiative to promote academic research among the residents and faculty. The residents and fellows of Neurology and Neurosurgery participate by presenting research projects. Faculty experts from the divisions of neurosurgery, neurology and basic neurosciences judge these presentations and award the participants.

Last year the Neurosciences Resident Research Day expanded to include a neurology alumni reunion, creating the new event “Resident Research Reunion Day”. This is an opportunity for the department to reunite alumni with current faculty and residents from the Department of Neurosciences for a day of presentations, food and fun. This year will feature Dr. Martin Samuels as the recipient of the 1st annual Robert J. Adams Visiting Professorship. Find out more by visiting: www.musc.edu/neurosciences/events

Alumni Profiles

William (Billy) Naso, M.D. Neurosurgery Residency 1996

Dr. William (Billy) Naso attended Davidson College for his undergraduate degree, and later received his medical degree from the University of North Carolina. He later attending the Medical University of South Carolina’s Neurosurgery Residency Program. Dr. Naso says of that experience, “I cannot imagine a more comprehensive neurosurgery residency training program than MUSC’s to prepare me for the demands of private practice. I look back fondly on my years in training and the intense relationships forged with my attendings and fellow residents. I count them all as good friends even today. Dr. Perot and Dr. Vera were true mentors whose words still echo in my head when I face difficult decisions about my patients.”

Dr. Naso is currently a neurosurgeon at Florence Neurosurgery and Spine (Florence, SC). His major professional interests are brain tumor surgery and spinal surgery.

He joined Dr. Andrew Rhea in 1996 and since then their practice has grown to include 4 neurosurgeons, interventional pain management, on-site MRI and in-house physical therapy.

He is married to Nicolette Naso M.D., who is an MUSC trained cardiologist with Pee Dee Cardiology in Florence, SC. They have 3 children (Caroline (20), Will (17), and Ben (12)). Caroline is a sophomore at Davidson College. “Florence has been a wonderful place to raise our family and to practice medicine. We have made many good friends and feel fortunate to be a part of the community.”
Windsong Hollis, MD  Neurology-psychiatry residency 2007

Windsong Hollis, M.D., a native of Denver, Colorado, is a graduate of the University of Virginia (B.A., philosophy), who earned a graduate degree in philosophy at Johns Hopkins University. She obtained a B.S. (molecular biology) from the University of Washington and her M.D. from Tulane University.

She completed the neurology-psychiatry residency at MUSC in 2007, after which she became a fellow in geriatric psychiatry at Oregon Health Sciences University. After fellowship, Dr. Jennifer Osborne, who was MUSC chief resident in psychiatry and MUSC attending Dr. Robert Rubey convinced Dr. Hollis to join them at the VA Medical Center in her hometown of Denver. Dr. Rubey founded the geropsychiatry service in Denver.

Her career interests have centered on the practice of geriatric neuropsychiatry in Colorado and the Washington, D.C. area, including her work at the Department of Veterans Affairs Medical Center in Denver and the Armed Forces Retirement Home. Dr. Hollis is particularly interested in posttraumatic stress disorder (PTSD) in the elderly, late onset mania, and other topics in geriatric neuropsychiatry. She has studied the effects of dementia, particularly frontotemporal dementia, on creativity, collecting drawings and paintings which exemplify the creative process unmasked by dementia. The photograph shows her poster presentation on PTSD at the annual meeting of the American Association of Geriatric Psychiatry.

Reflecting on her years at MUSC, Dr. Hollis commented that the faculty and her contemporaries were extremely important to my training and personal development as a physician. Daily rounds with Dr. Bachman were not only instructive for examining and elucidating the neuropsychiatric signs and symptoms but exemplary - fostering compassionate care and scientific curiosity in all of the trainees. She returns for visits to Charleston and Folly Beach with her family on a regular basis.

James E (John) Carnes, MD  Neurology residency 1977

John Carnes, MD earned his undergraduate degree from the University of South Carolina prior to enrolling in the College of Medicine at MUSC. He entered the neurology residency as Dr. Edward Hogan arrived from the University of North Carolina and became department chair.

Inspired by Dr. Hogan and Dr. Jean-Michel Goust, he became interested in immunology and multiple sclerosis, working with Dr. Hugh Fudenberg in the basic science aspects of the disease. Dr. Carnes served as Chief Resident and then joined the faculty. He and Dr. Hogan were instrumental in starting the neurology service at the VA prior to the installment of a full-time chief of the VA Neurology service. Dr. Carnes recalls his residency and faculty years as “a lot of work but also a lot of fun!” He particularly enjoyed the relationships he built with fellow residents and faculty, citing the congeniality and collegiality of the group.

After serving on the faculty for a period of time, Dr. Carnes joined another MUSC alumnus, Dr. Julian Adams (COM ’63, residency ’67) in the founding of the South Carolina Neurological Clinic in Columbia, SC. Dr. Carnes continues his career as a clinical neurologist and senior member of the group and is as busy as ever.

Apart from his professional activities, Dr. Carnes has pursued his life-long interest as an accomplished jazz pianist. He recently performed in the 5th annual benefit concert for the Free Medical Clinic in Columbia in the rendition of “The Doctors Lounge.” http://midlandsbiz.com/news/around-columbia/572/ He vows that jazz offers a rewarding way to enjoy his leisure hours, in concert or in private.

Thomas F Scott, M.D.  Neurology residency 1989

Dr. Thomas (Tom) Scott obtained his undergraduate degree from Dartmouth College and his M.D. from West Virginia University School of Medicine. Following his internship he entered the MUSC residency program in 1986, was appointed Chief Resident, and completed the program in 1989.

He recalls the family atmosphere instilled during his training by long-time Chair Dr. Edward L. Hogan but indicates that “Dr. Hogan kept us in line with his professorial oversight!” He noted that the residency was permeated with a flavor of the classical training from Boston which Dr. Hogan brought to the program. Dr. Scott also counts the late Dr. John Gross and Dr. Jean-Michel Goust among his mentors, noting that Dr. Goust and Dr. Hogan incited his ongoing interest in neuroinflammatory disorders, including multiple sclerosis, sarcoidosis, and systemic lupus erythematosus.

Dr. Scott moved directly to Pittsburgh, where he remains today, after completing his residency. He founded the neurology residency at Allegheny General Hospital and served as the first program director for 10 years. Currently he is Professor of Neurology at both Drexel University College of Medicine, Allegheny campus, and at Temple University School of Medicine. He is also Vice Chair of the Department of Neurology at Drexel. He serves as director of medical student training in neurology at Allegheny General Hospital and has been honored with teaching awards from both medical schools with which he is affiliated.

His clinical focus is in neuroinflammatory disease in general and multiple sclerosis in particular, serving as director of the Allegheny Multiple Sclerosis Treatment Center at Allegheny General Hospital. He has published well over 100 scientific papers and is a frequent reviewer for scholarly journals. He has updated our department through his presentations to MUSC on return visits to campus.
Employee Updates

- Libby Kosnik Infinger, MD, MPH, Neurosurgery Chief Resident PGY-7, recently matched for a fellowship at Cincinnati Hospital. This was her first choice. Congratulations Libby!

- Tanya M. Quinn M.D., MUSC Neurosurgery Residency Alumni, recently passed her American Board of Neurological Surgery.

- Dr. Robert Adams, University Eminent Scholar and Director, South Carolina Stroke Center of Economic Excellence, will be taking on the role of our Vice Chair for Research (tentative start date of March 1, 2014). We greatly look forward to benefitting from Dr. Adams’ vision, expertise, and experience, as we work to boost the conduct of top-tier research at various levels and within different subspecialties in the Department. We are grateful to Dr. Chimowitz for his service over 1.5 years in this role.

- Dr. David Clark will be joining our faculty in July 2014. Dr. Clark will be a member of our burgeoning Cognitive and Behavioral Neurology Division, Associate Director of Dementia Research, and help staff our MUSC Memory Disorders Clinics. Dr. Clark comes to MUSC from the University of Alabama, Birmingham, and we look forward to him joining our Department next Summer.

- Dr. John Gibson joined our faculty earlier this year to work alongside Dr. Jarom Hanson to build our Neuro-hospitalist program. Welcome Dr. Gibson!

- Congratulations to Drs. Jarom Hanson and Samir Karia for recently passing their General Adult Neurology and Pediatric Neurology Boards!

- As of July 1, 2014, the Pediatric Neurology Division will be moving to the Department of Pediatrics. This move is being done to enhance the tri-fold mission (clinical/education/research) of Pediatric Neurology and better align the Division with the broader vision/goals of the Children’s Hospital, will involve a transfer of all Pediatric Neurology faculty, APPs, and administrative staff.

- Dr. Nicholas Milano will be joining our Department in August 2014. Dr. Milano will be joining our burgeoning Cognitive and Behavioral Neurology Division. Dr. Milano comes to us from the University of Florida, and he will be working alongside Dr. David Bachman.

- Dr. Jong-Ho Park, MD, PhD, has joined the Stroke Center as a visiting scholar. Dr. Park will be working with us over the next year, observing in the clinical domain, participating in research and clinical trials, as well as leading and participating in writing manuscripts for publication. Welcome Dr. Park! We hope you have a fruitful and pleasant time with us.

- Congratulations to Dr. Julia Rothlisberger and Dr. Karen Karwa on being selected as our Neurology Chief Residents for the upcoming year (2014-2015)! Drs. Rothlisberger and Karwa were selected based on their professional and personal skills/talents, and the process included a vote by the entire neurology faculty.

- The College of Medicine Appointments, Promotions and Tenure Committee, and the Dean of the College of Medicine have approved the promotion of Dr. Jenifer Voeks to Research Associate Professor starting July 1, 2014. Great news and hearty congratulations to Dr. Voeks!

- Dr. Katherine Ruzhansky will be joining our Department in August 2014. Dr. Ruzhansky will be part of the Neuromuscular Division, comes to us from Columbia University, and will be working alongside Drs. Nozaki, Kurent, and Herring to deliver high-quality care and impart excellent housestaff training. In particular, Dr. Ruzhansky will lead the hospital EMG lab and develop/lead an Autonomic Nervous System Testing Laboratory. The Autonomic Nervous System Testing Laboratory will conduct autonomic physiology studies of patients with dysautonomias and related conditions.

Welcome New Employees

Khieda Richardson-Backman, Admin.
Tameka Burgess, Admin.
Meredith Gale, Development Director
Jamie Folsom, ACNP
Angela Robinson
Gloria Moran, Fiscal Tech
Janis Adams, Admin.
Natalie Foster, FNP-BC
Goria Moran, Admin.
Emily Whitehead, PA-C
Sarah Creed, APRN

Goodbye and Good Luck

Megan McDonough, Admin.
Shannon D’Alton, FNP
Bobbie Stasa, Admin.
Britt Hinkson, PA-C
Employee Spotlight: Meredith Gale

Meet employee Meredith Gale. Meredith joined our team at MUSC Neurosciences as the development director, in January 2014. Meredith is a graduate of the College of Charleston and majored in Psychology and Criminal Justice, which included a 2001 internship here at MUSC in our Crime Victims Center. After graduation Meredith worked with a New York City-based designer and traveled the country hosting sales and marketing events. After several years on the road and an enjoyable stent in the publishing business, Meredith decided to follow her passion for not-for-profit organizations. She accepted a position with the American Red Cross, bringing her back to the Charleston area. A year after her return to Charleston the American Heart Association reached out to her with an offer to join their local team and after four years in their Charleston office she was offered a promotion to work as the Vice President of Social Events Fundraising in their Palm Beach, Florida market. After two years in Palm Beach, Meredith and her husband returned to Charleston to start their family, and joined the MUSC Neurosciences family.

WORK

How are you changing what’s possible?
The more people in our city, state & region know about the amazing work being done & discoveries being made on our campus the greater opportunity we have to match a donors needs with our future opportunities. When we do that anything is possible.

What do you enjoy most about your job at MUSC?
Learning about the work our physicians, surgeons & researchers are conducting & sharing in with our philanthropic partners in the community.

TELL US MORE!

Where are you originally from, and can you tell us a fun fact about the city?
Winston-Salem, North Carolina. My husband jokes that everything started there, from the obvious products all the way to things like Texas Pete & Krispy Kreme.

What do you like to do in your free time?
I love being outdoors with my husband, Bridger, and our 9 month old son Ebbs... he loves discovering the sights & sounds on the water & in the woods!

If you could have any super power, what would it be and why?
I would chose to have the super power to be invisible, that way I could observe random acts of kindness & reward them.

When you were little, what did you want to be when you grew up?
I wanted to be a Veterinarian & own a farm to take care of all sorts of animals.

If you could witness any historical event, what would you want to see?
I would love to witness the courageous acts that made the Underground Railroad possible.

What would you like to be famous for?
Being a good mother to my family & a kind neighbor to all those I encounter.
Starting from top left (going clockwise)

LTC (Dr.) Julio Chalela took first place for his age group in the 10K Ruck Run “Flags of Our Fathers” last December in Parwan, Afghanistan. The ruck run honors those who died during the Pearl Harbor Attack. In the back are the majestic Hindu Kush mountains.

Steph Willingham, Ashleigh Schmall and Chrissy Anderson stop for a picture.

T-shirt designed by one of our stroke patients.

Photo from Departmental Holiday Party.

Karen St. Marie poses with Cool Ray at the Hockey Heroes for Epilepsy Game.
## Translational Research Unit (TRU) Clinical Trials

Clinical trials, also called research studies, are managed by government agencies, educational institutions, private not-for-profit organizations, or commercial businesses, to develop, produce, and evaluate the effectiveness of new treatments and therapies for diseases. New trials are added on a routine basis, and many clinical trials accept only a limited number of participants. The following is a list of TRU clinical trials that are actively enrolling patients.

If you are interested in viewing additional clinical trials, not included in the list below, please visit the site links below:

- **South Carolina Clinical Trials** - [http://scresearch.org/](http://scresearch.org/)
- **MUSC Hollings Cancer Center Clinical Trials** - [http://prc.hcc.musc.edu/portal/cto/ClinicalTrials/tabid/488/Default.aspx](http://prc.hcc.musc.edu/portal/cto/ClinicalTrials/tabid/488/Default.aspx)

### NEURO-ONCOLOGY:

<table>
<thead>
<tr>
<th>Trial Description</th>
<th>Investigator</th>
<th>Coordinator</th>
<th>Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Phase II Clinical Trial Evaluating DCVax-Brain, Autologous Dendritic Cells (DC) Pulsed with Tumor Lysate Antigen for the Treatment for Glioblastoma</td>
<td>Pierre Giglio, MD</td>
<td>Michele DeCandio, RN, OCN, CCRP</td>
<td>843-792-9016, <a href="mailto:decandio@musc.edu">decandio@musc.edu</a></td>
</tr>
<tr>
<td>An International, Randomized, Double-Blind, Controlled Study of Rindopepimut/GM-CSF with Adjuvant TMZ in Patients with Newly Diagnosed, Surgically Resected EGFRvIII-positive Glioblastoma</td>
<td>Bruce Frankel, MD</td>
<td>Michele DeCandio, RN, OCN, CCRP</td>
<td>843-792-9016, <a href="mailto:decandio@musc.edu">decandio@musc.edu</a></td>
</tr>
<tr>
<td>A Phase I-II Trial of Everolimus and Sorafenib in Patients with Recurrent High-Grade Gliomas</td>
<td>Pierre Giglio, MD</td>
<td>Michele DeCandio, RN, OCN, CCRP</td>
<td>843-792-9016, <a href="mailto:decandio@musc.edu">decandio@musc.edu</a></td>
</tr>
<tr>
<td>Randomized, Double-Blind, Placebo-Controlled Trial of Lacosamide for Seizure Prophylaxis in Patients with High-Grade Gliomas</td>
<td>Pierre Giglio, MD</td>
<td>Michele DeCandio, RN, OCN, CCRP</td>
<td>843-792-9016, <a href="mailto:decandio@musc.edu">decandio@musc.edu</a></td>
</tr>
</tbody>
</table>

### MOVEMENT DISORDERS:

<table>
<thead>
<tr>
<th>Trial Description</th>
<th>Investigator</th>
<th>Contact</th>
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</thead>
<tbody>
<tr>
<td>Creatine Safety, Tolerability &amp; Efficacy in Huntington’s Disease (CREST-E)</td>
<td>Gonzalo Revuelta, MD</td>
<td>843-792-9115</td>
</tr>
<tr>
<td>A Clinical Study of Patients with Symptomatic Neurogenic Orthostatic Hypotension to Assess Sustained Effects of droXidopa Therapy (PHOENIX)</td>
<td>Gonzalo Revuelta, MD</td>
<td>843-792-9115</td>
</tr>
<tr>
<td>A Phase 3, 12-Week, Double-Blind, Placebo-Controlled, Randomized, Multicenter Study to Evaluate the Efficacy of Oral Istradefylline 20 and 40mg/day as Treatment for Subjects with Moderate to Severe Parkinson’s Disease</td>
<td>Christina Vaughan, MD</td>
<td>843-792-9115</td>
</tr>
<tr>
<td>A Multi-Center, Double-Blind, Placebo-Controlled Phase II Study of Pioglitazone in Early Parkinson’s Disease (FS-ZONE)</td>
<td>Christina Vaughan, MD</td>
<td>843-792-9115</td>
</tr>
<tr>
<td>A Pilot Study of Atomoxetine for Freezing of Gait in Parkinson's Disease (FOG)</td>
<td>Gonzalo Revuelta, MD</td>
<td>843-792-9115</td>
</tr>
<tr>
<td>Assessment of Need for Treatment with Botulinum Toxin Type A in Cervical Dystonia Patients</td>
<td>Christina Vaughan, MD</td>
<td>843-792-9115</td>
</tr>
<tr>
<td>Atomoxetine Treatment for Cognitive Impairment in Parkinson's Disease</td>
<td>Vanessa Hinson, MD</td>
<td>843-792-9115</td>
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</table>
## CLINICAL TRIALS

**EPILEPSY:**

<table>
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<tr>
<th>Study Title</th>
<th>Investigator</th>
<th>Coordinator</th>
<th>Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Human Epilepsy Project</td>
<td>Gabriel Martz, MD</td>
<td>Kimberly Schnabel</td>
<td>843-792-3855, <a href="mailto:schnabel@musc.edu">schnabel@musc.edu</a></td>
</tr>
<tr>
<td>A Pivotal, Phase III Trial of Detecting Generalized Tonic-Clonic Seizures with a Seizure Detection and Warning System in Epilepsy Patients</td>
<td>Jonathan Halford, MD</td>
<td>Kimberly Schnabel</td>
<td>843-792-3855, <a href="mailto:schnabel@musc.edu">schnabel@musc.edu</a></td>
</tr>
<tr>
<td>fMRI in Anterior Temporal Epilepsy Surgery</td>
<td>Leo Bonhila, MD</td>
<td>Sheri Davis</td>
<td>843-792-2845, <a href="mailto:davshe@musc.edu">davshe@musc.edu</a></td>
</tr>
<tr>
<td>Location of Seizures with Post Ictal MRI</td>
<td>Leo Bonhila, MD</td>
<td>Sheri Davis</td>
<td>843-792-2845, <a href="mailto:davshe@musc.edu">davshe@musc.edu</a></td>
</tr>
<tr>
<td>Histological Analysis Epilepsy Surgery Tissue</td>
<td>Leo Bonhila, MD</td>
<td>Sheri Davis</td>
<td>843-792-2845, <a href="mailto:davshe@musc.edu">davshe@musc.edu</a></td>
</tr>
<tr>
<td>Advance Brain Imaging</td>
<td>Leo Bonhila, MD</td>
<td>Sheri Davis</td>
<td>843-792-2845, <a href="mailto:davshe@musc.edu">davshe@musc.edu</a></td>
</tr>
<tr>
<td>Neuropsychological Evaluation During Routine Intracranial Recording</td>
<td>Leo Bonhila, MD</td>
<td>Sheri Davis</td>
<td>843-792-2845, <a href="mailto:davshe@musc.edu">davshe@musc.edu</a></td>
</tr>
<tr>
<td>Transcranial Direct Current Stimulation and Aphasia Treatment Outcomes</td>
<td>David Bachman, MD</td>
<td>Sheri Davis</td>
<td>843-792-2845, <a href="mailto:davshe@musc.edu">davshe@musc.edu</a></td>
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</tbody>
</table>

**SPINE:**

<table>
<thead>
<tr>
<th>Study Title</th>
<th>Investigator</th>
<th>Coordinator</th>
<th>Contact</th>
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</thead>
<tbody>
<tr>
<td>A Double-Blind, Placebo-Controlled Study of AC105 in Patients with Acute Traumatic Spinal Cord Injury</td>
<td>Abhay Varma, MD</td>
<td>Angela Robinson</td>
<td>843-792-7118, <a href="mailto:robia@musc.edu">robia@musc.edu</a></td>
</tr>
<tr>
<td>A Prospective, Post-Market Assessment of Nanoss Bioactive 3D in the Posterolateral Spine</td>
<td>Abhay Varma, MD</td>
<td>Angela Robinson</td>
<td>843-792-7118, <a href="mailto:robia@musc.edu">robia@musc.edu</a></td>
</tr>
<tr>
<td>An Observational, Multi-Center, Non-Randomized (Single Arm) Registration of the PerX360 System</td>
<td>Stephen Kalhorn, MD</td>
<td>Angela Robinson</td>
<td>843-792-7118, <a href="mailto:robia@musc.edu">robia@musc.edu</a></td>
</tr>
</tbody>
</table>

**Clinical trials** are the primary way **breakthroughs** in treating diseases are made.
# Neurosciences Grants: December - February 2014

<table>
<thead>
<tr>
<th>PI</th>
<th>Title; Agency</th>
<th>Total</th>
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<tbody>
<tr>
<td><strong>December 2013</strong></td>
<td></td>
<td></td>
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<tr>
<td>Bonilha, L</td>
<td>Presurgical Application of fMRI in Epilepsy Medical College of Wisconsin</td>
<td>$38,025</td>
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<tr>
<td>RevueIta, G</td>
<td>PHOENIX: A Clinical Study of Patients with Symptomatic Neurogenic Orthostatic HypoTension to Assess Sustained Effects of DroXidopa Therapy Icon Clinical Research, Inc.</td>
<td>$119,975</td>
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<tr>
<td>Burnett, E</td>
<td>Understanding the Neurobiological Correlates that Signal the Aversive Properties of Ethanol NIH/NIAAA</td>
<td>$49,214</td>
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<tr>
<td>Shih, A</td>
<td>Novel Strategies to Enhance MRI Detection of Ultra-Small Brain Lesions in Vascular Dementia Dana Foundation</td>
<td>$48,047</td>
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<tr>
<td>Kalhorn, S</td>
<td>An Observational, Multi Center, Non-Randomized (Single Arm) Registration of the PerX360 System, Interventional Spine Inc. PerX360 Registry</td>
<td>$31,500</td>
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<tr>
<td><strong>January 2014</strong></td>
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<tr>
<td>Feng, W</td>
<td>Prediction and Imaging Biomarker for Post-Stroke Motor Recovery; Amer. Heart Assoc. 14SDG18290003 (018100)</td>
<td>$77,000</td>
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<tr>
<td>Ovbiagele, B</td>
<td>Stroke Investigative Research and Education Network (SIREN); Univ. of Ibadan</td>
<td>$217,742</td>
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<tr>
<td>Walker, A</td>
<td>Randomized Evaluation of Recurrent Stroke Comparing PFO Closure to Established Current Standard of Care Treatment Aga Medical Corp.; RESPECT Trial (018142)</td>
<td>$340,349</td>
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<tr>
<td>Bentzley, B</td>
<td>The Role of Orexin and Subthalamic Nucleus in Cocaine Demand NIH/NIDA</td>
<td>$42,361</td>
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<tr>
<td>Bhat, N</td>
<td>Vasculoprotective Approach to AD Treatment, Alzheimers Drug Discovery Foundation</td>
<td>$123,923</td>
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<tr>
<td>McGInty, J</td>
<td>Oxytocin Suppresses Substance Use Disorders Associated with Chronic Stress, Institute for Molecular Neuroscience</td>
<td>$315,770</td>
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<tr>
<td>McGInty, J</td>
<td>Prevention of Cocaine-Induced Prefrontal ERK Shutoff During Early Withdrawal, NIH/NIDA</td>
<td>$281,363</td>
</tr>
<tr>
<td>Giglio, P</td>
<td>A Phase II Trial of Oral Pazopanib plus Oral Topotecan Metronomic Antiangiogenic Therapy for Recurrent Glioblastoma Multiforme (A) without Prior Bevacizumab Exposure and (B) after Failing Prior Bevaci, Univ. of Texas MD Anderson Cancer Center</td>
<td>$30,000</td>
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<tr>
<td>Turner, R</td>
<td>Reverse Medical Lab Training Study, Reverse Medical Corp.</td>
<td>$26,904</td>
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<tr>
<td><strong>February 2014</strong></td>
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<tr>
<td>Hinson, V</td>
<td>Parkinson’s Disease Neuroprotection Clinical Trial Center, NIH/NINDS</td>
<td>$65,716</td>
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<tr>
<td>Bentzley, B</td>
<td>The Role of Orexin and Subthalamic Nucleus in Cocaine Demand NIH/NIDA</td>
<td>$444</td>
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<tr>
<td>McGInty, J</td>
<td>Prevention of Cocaine-Induced Prefrontal ERK Shutoff During Early Withdrawal NIH/NIDA</td>
<td>$31,262</td>
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<tr>
<td>Mulholland, P</td>
<td>Stress and Ethanol Dependence: SK Channels and Glutamate NIH/NIAAAA</td>
<td>$165,312</td>
</tr>
</tbody>
</table>
Thank you for your contributions. For questions, comments or to make a submission please email:

vought@musc.edu