MESSAGE FROM THE CHAIRMAN: STATE OF THE DEPARTMENT

SCOTT T. REEVES, MD, MBA

Each July, I have the pleasure of addressing the department and summarizing the many accomplishments we collectively have had over the past twelve months. FY 2011 was an incredible year and if we continue on this trajectory, the State of the Department address may have to take more than a single hour. Besides highlighting the accomplishments, it is an opportunity to lay the groundwork for where I think we should be heading. If you were unable to attend, I encourage you to review it from our website at www.musc.edu/anesthesia.

Along those lines, the faculty are currently actively engaged in a five year strategic planning process. Over the next four months, subcommittees on education, faculty development, clinical care, research and finance will be meeting and discussing what we want to accomplish in the next five years. The faculty will participate in an all day retreat on November 19 in Gazes Auditorium to learn the results of the subcommittee’s work and to have input into the ultimate vision. It is an excellent time for the department to perform this important process for several reasons. Our last strategic retreat was in 2006, and fortunately we accomplished almost all of those goals. Most importantly, health care reform is just around the corner. By having a clear vision, we will be better prepared to chart our own course.

I want to end with a recent email quote from Dr. Laura Roberts describing only one facet of what we hope to accomplish at our retreat, faculty development, “Just wanted to comment on the level of scholarly activity here. Many of us, myself included, completed book chapters and other projects. I think it’s pretty exciting.” She then went on to outline what she plans to accomplish academically for FY 12. We are truly moving towards a more academic department.
MEET OUR NEW FACULTY LEADERS

Kelly Grogan, MD: Quality and Compliance Officer
Dr. Grogan completed her medical school, anesthesiology residency, critical care fellowship and cardiothoracic fellowship all at Johns Hopkins School of Medicine. While in the cardiothoracic division, Kelly was the anesthesiology representative for cardiac surgery performance improvement and surgical site infection collaborative. For the department, she developed glucose management protocols for patients in the ICU, cardiac ORs, and for diabetic patients coming for surgery. She will now target specific improvement initiatives for the department such as working with Drs. Tam Psenka and Buddy Inabinet in streamlining preop testing. Her energy and expertise in this area is most welcomed.

David Stoll, MD: Transplantation Division Head
A “native” Charlestonian due to his undergraduate education at the College of Charleston, Anesthesiology residency at MUSC, and distant but direct tie to Stoll’s Alley, David and wife, Mary Ellen, are happy that they returned following a brief stent in private practice. Over the past year, David has done a remarkable job leading the department’s effort to create a faculty staffing model for the Ambulatory Procedure Center in Mt. Pleasant. He has now agreed to take on the leadership role for the Transplant division. Please welcome him in his new role.

Sylvia Wilson, MD: Regional Anesthesia Division Head
Dr. Wilson attended the University of Florida for both her bachelors and medical degrees. She then received her anesthesiology training at the University of North Carolina before doing a regional anesthesia and acute pain fellowship at the University of Pittsburgh. Over the past year, she has organized the department’s Regional Anesthesia Workshops and revised the resident regional rotation. I am excited that she will continue to expand the opportunities for the faculty and residents as our division head.
MEET THE NEW CARDIOTHORACIC FELLOWS

Alan and Tracy Finley hosted an informal barbeque to welcome the new CT fellows, Wes Hudson and Ross Simril on July 2. It was a fun afternoon tasting Alan’s recent attempt of giving us all coronary artery disease with his *bacon explosion* masterpiece. Cathy and I especially enjoyed seeing all the young children present.

Drs. Alan Finley and Jake Abernathy enjoy some good barbeque. Drs. Ross Simril, Eric Nelson, and Wes Hudson enjoy a relaxing afternoon outside.

D. Wesley Hudson, MD

Wes Hudson recently completed his Anesthesia residency here at MUSC. Originally from North Carolina, he and his family are looking forward to another year in Charleston. He received his undergraduate degree at UNC-Chapel Hill before attending East Carolina School of Medicine. Outside of the hospital, he enjoys stand up paddle boarding, but spends most of his time chasing down his four kids.

Ross Simril, MD

Ross is a 2007 graduate of the MUSC College of Medicine. He completed his residency training at University of Alabama-Birmingham in June, and has returned to MUSC for a Cardiothoracic Anesthesia fellowship. He is looking forward to working with the faculty and residents in the Department of Anesthesia.

Ross has a 2 year old daughter and is very happy he and his family are living close to home again.
William Hand, MD

Will is joining the faculty after completing residency here at MUSC and serving as chief resident. He attended Saint Louis University School of Medicine before matriculating to his training at MUSC. He looks forward to delivering excellent care to patients undergoing procedures at both UH and ART procedural areas.

Will is married to Megan, who also works at MUSC as a Pediatric Occupational Therapist. They have two children, Emi Reese (2) and William Xavier (3 mos). You may see Will out playing beach volleyball on Isle of Palms or in the Harper center defending his many intramural championships for the department. Megan and he look forward to involving their family in the MUSC and Charleston community as they can finally put down their roots!

Jerrell Brown, MD, MPH

Jerrell is a true southerner. He was born in Huntsville, AL and grew up in Raleigh, NC. He completed his undergraduate degree at the UNC at Charlotte where he received a B.S. in Biology and a B.A. in Chemistry. In 2007, Jerrell completed a Masters in Public Health and a Medical Doctorate from UNC Chapel-Hill. While in medical school, he rotated here at MUSC in the Department of Anesthesia, and under the guidance of David Stoll, Andy Dick, and Catherine Tobin he knew a residency in Charleston was the place for him. Jerrell quickly fell in love with Charleston and made a notion to stay here as long as possible.

In his free time, he enjoys basketball, reading Harlan Coven’s Myron Bolitar series, running, and most of all eating. Jerrell is excited about the upcoming year and looks forward to working with everyone in our department. He is excited about continuing his medical development, teaching residents, and learning about various research opportunities. One of his strategic goals this year is to beat Will Hand in any sport!

SUMMER RESEARCH MEDICAL STUDENTS LEAVING US

I cannot believe that it is already August. Our summer research medical students, Luke Dong, Korey Rentz, Karina Geronilla and Julius Hamilton will be finishing their summer projects in the next several weeks, then returning to medical school. Matt, Frank, Alan, Peggy and I had the opportunity to take them out to lunch recently at Halo to discuss their accomplishments. We wish them all the best!
Miltiadis Kerdemilidis (Milty)

Milty joins the Research staff coming from the University of South Florida where he received his undergraduate degree in Biomedical Sciences. He is also currently working on a Masters in Health Sciences. Milty is no stranger to the hot Charleston climate, moving here from Tarpon Springs, FL.

He is very excited for the opportunity to be a part of the studies being undertaken by the Anesthesia Department and looks forward to meeting everyone and collaborating on future projects.

Sarah Fredrich

Sarah is a 2011 graduate from the University of South Carolina, graduating summa cum laude with a degree in Biology and a minor in Medical Humanities. Much of Sarah’s undergraduate career was spent studying, volunteering with various organizations around campus, and working as the Special Programs Coordinator for Carolina Productions. She also spent a good deal of her free time enjoying the Carolina sunshine with her two year old miniature Australian shepherd, Eva, on the historic horseshoe in Columbia.

Sarah is an Illinois native, having been born and raised in the northwest suburbs of Chicago. Her immediate family consists of her much-loved parents, Kevin and Kathy, and her two sisters, Meghan and Katie. She often suffers from middle child syndrome, believes Chicago only has one true baseball team (The Cubs), and would like to invite everyone from the Carolinas up to Chicagoland for some authentic deep dish pizza from Lou Malnati’s, the only way pizza should be.

In Sarah’s free time she likes to explore Charleston and see what her new home has to offer; she also loves reading, walking Eva, and cooking. In the future Sarah hopes to gain acceptance to medical school, and work in the field of neurology.
Continuous labor epidurals (CLE) provide parturients with an excellent analgesia option during labor. Despite the low associated risk and notable analgesic benefits, many women choose not to have a CLE. Several studies have examined women’s preferences for choosing to avoid or accept CLE placement including socio-economic and educational barriers that decrease CLE utilization. A study conducted amongst laboring parturients at MUSC showed that the timing of epidural request was significantly related to educational levels. Patients with higher education requested epidurals earlier in labor than those with less education. It has been shown that educational interventions during the antenatal period are associated with higher acceptance rate of labor epidurals.

In order to improve utilization of labor epidurals, we had earlier printed brochures for patient education. We thought that it would be beneficial to present the same information in an audio-visual manner. This would perhaps reiterate the high benefits and low risks associated with labor epidurals. This video will be telecast in the Prenatal Wellness Center and in all labor rooms via the Get Well Network on admission and will give an opportunity for patients to view the process closer to childbirth, and help them with decision making for timing of their epidural. The goal of this video is to increase awareness about availability and safety of the use of epidural for pain relief during labor and childbirth, and to inform expectant moms about management of pain after childbirth. The video is available both in English and Spanish.

These videos will also be available through our website at http://clinicaldepartments.musc.edu/anesthesia/clinicalsections/obstetrical.htm.

To view this video in English, please click the movie icon to the left.

To view this video in Spanish, please click the movie icon below.
What on earth does our department have to do with statewide information systems? Quite a lot actually, so here’s the story. It starts with Dr. Jerry Reves, our former Dean of the College of Medicine and former Chairman of the Department of Anesthesiology at Duke. I worked with Jerry on Duke’s anesthesia information systems and a few years after he moved to Charleston to be Dean, he recruited me for a startling new opportunity. In response to a speculative grant Jerry authored, The Duke Endowment had given $21m to an organization called Health Sciences South Carolina (HSSC) to create statewide systems centered around the concept of a “South Carolina Health Data Portal.” Jerry asked me to make it happen.

When I arrived in November 2007 with my wife and three teenagers in tow, I realistically knew as much about the project as you do after reading that paragraph. There was a lot to learn – what was HSSC, how did it function, and if all this money was available, why was I being harassed about my paycheck? HSSC, I discovered, is a collaborative of the three main research universities (Clemson, USC and MUSC) and three hospital systems in the state (Palmetto Health, Greenville, Spartanburg). The mission of the organization is to improve South Carolina’s pressing public health needs through collaborative research initiatives, and the Duke grant was intended to capitalize on this unique spirit. The challenge, as presented in 2007, was that although HSSC had functioned as a senior leadership forum for some years through offices in Columbia, there had been no tangible effort to build information systems and there was certainly no in-house informatics expertise that could match the lofty goals Jerry had elegantly described in the grant. As far as the paycheck was concerned, there was no process in place to transfer money from USC’s “Center for Healthcare Quality”, the actual recipient of the grant. We were really starting from scratch, at a period in 2008 when it seemed the whole world was financially imploding.

At the same time as I was crisscrossing South Carolina trying to understand HSSC’s challenges, MUSC was engaged in a research transformation of its own. In order to preserve its position as one of the nation’s top research academic medical centers, MUSC had applied for a Clinical and Translational Science Award (CTSA) from the National Center for Research Resources in 2007. These awards are important – only 60 were to be given out to select centers that could transform themselves into powerhouses of translational research. The initial awards were also big; $60m to Duke, $100m to Partners, with 12 being awarded each year. Clearly the CTSA was a club you had to be part of, and by 2007 institutions that had failed after the third round of awards were scrambling. MUSC was one of these, and the main reason cited was the lack of a viable biomedical informatics program. It would be misleading to say that there was a eureka moment, but out of the confusion an opportunity emerged in which it seemed obvious that the concept of the South Carolina Health Data Portal would be just the sort of project to attract biomedical informatics expertise to South Carolina, and that this could be the core of a Biomedical Informatics Program in Charleston where we badly needed to convince the CTSA reviewers that MUSC was serious.

HSSC would support the CTSA effort and vice versa. The good news is that the reviewers liked the idea, as did the HSSC Board, so MUSC was awarded its CTSA and by the spring of 2009 we had a business plan to begin recruiting staff and build our interpretation of the South Carolina Health Data Portal, and I did get paid thanks to the department’s own Brenda Dorman.

A great deal has happened since then. Our new interpretation of the SC Data Portal centers on the creation of a data warehouse where the HSSC hospitals send their identified patient data into a single data “trust” housed at Clemson. The goal is to use the trust as the reference for a hospital’s own questions of clinical quality, while expressing a combined mart of data in de-identified form for research discovery to all South Carolina’s researchers through a portal. If this makes your hair stand on end, it should, for reasons technical, of data privacy and of system governance.

Continued on next page...
STATEWIDE IT SYSTEMS AND OUR DEPARTMENT OF ANESTHESIOLOGY  

BY: IAIN SANDERSON, BM

Of the technical, our system listens to medical data message traffic passing between clinical systems at all the HSSC hospitals, and re-routes it securely to our database at Clemson using a 160GB/sec fast internet connection. Messages are decoded, and an individual’s medical record resynthesized in the data warehouse from the sum of their messages. We have an Enterprise Master Patient Index that can uniquely match individuals who attend multiple hospitals, or for example, who change names when they marry. So far we have modeled over 2 million individuals between MUSC and Palmetto Health. Regarding data privacy (and security), this is of course paramount; a single indiscretion would kill our entire project. In short, the answer is that data is transmitted securely, that Clemson has a long history of managing clinical data – it manages the state Medicaid database – and that we have an Information Security Officer (ISO) dedicated to the project who can halt it at any time. Our system has been approved for research purposes by all the HSSC Institutional Review Boards and you can be sure that privacy and security of our infrastructure was a key element. Right now we are actively building the data warehouse and readying it for first use under a memorandum of understanding and a network of individual agreements between the hospitals and our business partners. From the governance viewpoint this will soon change when all parties sign a heavily negotiated “Data Collaboration Agreement” to determine the governing committee structure and the rules of how all the institutions and researchers will “play nice” with the data. These systems take time, and we hope to release the research tool for MUSC data by the end of the year, with the other institutions following soon after.

At the same time as the main effort on the data warehouse, we have assembled the team necessary to both build these systems and grow a credible academic biomedical informatics program at MUSC to support its CTSA. With Dr. Jihad Obeid heading academic informatics as a discipline, our combined HSSC and MUSC Biomedical Informatics Program now employs nearly 26 FTE’s spread across South Carolina. We have faculty, managers, developers, user analysts, support staff and a PhD student in Charleston, program and project managers in Columbia, and hosting, database staff and the ISO at Clemson. As well as the data warehouse, the vision for the SC Data Portal includes a suite of tools and services that reduce the barriers to research discovery and administration at the statewide level. Our successes to date include a single electronic IRB management system, a registry of research across the state www.scresearch.org, an expert profiling tool to enable research collaboration http://sctr.musc.edu/index.php/palmettoprofiles, and all the tools that MUSC’s CTSA program has promised to transform the research process here: https://sctr.musc.edu/.

It turns out that Jerry Reves’ vision for South Carolina was unique – to date there is no other collaborative of otherwise unaffiliated or competitive hospitals in the US that are contemplating sharing identified clinical data for public health, clinical quality and research purposes. After just over 2 years of active building we have had a few wins and built the team necessary to move on to the delivery, use, and support of the systems. The Duke Endowment understands the complexity of what we are trying to achieve and likes our progress. Just this June, Duke agreed to support our effort with another award over three years. Some of our systems are ground-breaking and we are beginning to be able to talk about them to a national audience. On a personal note, the move to Charleston has been a huge challenge for me and my family, but we are finally settling. I never found the time to get my medical license here, let alone practice anesthesia. I used to be on the transplant team at Duke. The Department could not have been more supportive of these efforts, and I hope that in the coming year you will begin to see the fruits of these endeavors, and perhaps, if you are patient with me and I can relearn some dormant skills, I hope to rekindle my anesthesia practice again.
Do you ever get the feeling that you are being watched? Well, you are. For the past few weeks our friends from the Department of Industrial Engineering at Clemson have brought their Human Factors Engineering observational skills to MUSC. They have camped out in OR 1 at ART with their pens and their clipboards and have watched more cardiac cases than most medical students. They have witnessed (and written about) us tripping on cables, hitting our heads on booms, miscommunicating with each other, wasting effort and generally running about. It has been our pleasure hosting these bright scientists.

Our research group continues to be intrigued by the notion that there is an interaction between space and error. It is our hypothesis that better designed OR space will decrease errors. Unlike designing a static building, healthcare architects must design adaptable space. Equipment moves around a room; patients move in and out. The room changes dramatically throughout a case. The first step in our process of linking errors to space was to map flow patterns of people and equipment in the OR. A team of healthcare architects, sorry USC fans – also from Clemson, mapped the operating room at each integral stage in an operation. (see pictures on next pages)

The scientific observations of the engineers will soon be combined with the time-lapsed architectural drawings to determine how space and layout might impact human error.

A debt of gratitude is owed to all participants in OR 1 for the past few weeks. Thank you for letting us observe your excellent care and your mistakes. It is our hope that one day your willingness and openness will make patients safer.
PROFILE OF THE CARDIAC OPERATING ROOM

ACTIVITY 1
ROOM PREPARATION

SEQUENCE OF SUBACTIVITIES
- Pre procedure/setup
- Perfusionist are setting up along with nurses and anesthesia tech

STAFF KEY
NURSING
ANESTHESIA
PERFUSION
SURGERY

ACTIVITY 2
ANESTHESIA PREPARATION

SEQUENCE OF SUBACTIVITIES
- Patient brought in
- Rest of surgical and anesthesia team arrive
- Anesthesia team puts patient to sleep

STAFF KEY
NURSING
ANESTHESIA
PERFUSION
SURGERY
# Profile of the Cardiac Operating Room

## Activity 5: Patient Prepped

**Sequence of Subactivities**
- Patient is sterilized and prepped
- Anesthesia screen goes up

<table>
<thead>
<tr>
<th>Activity</th>
<th>Staff Key</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Patient Prepped</strong></td>
<td><strong>Nursing</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Anesthesia</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Perfusion</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Surgery</strong></td>
</tr>
</tbody>
</table>

## Activity 7: Vein Retrieval

**Sequence of Subactivities**
- While chest is being worked on, attending surgeon gets vein from leg

<table>
<thead>
<tr>
<th>Activity</th>
<th>Staff Key</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Vein Retrieval</strong></td>
<td><strong>Nursing</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Anesthesia</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Perfusion</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Surgery</strong></td>
</tr>
</tbody>
</table>
GRAND ROUNDS FOR MONTH OF AUGUST

“Carotid Disease: CEA vs Stenting; Regional and General Approach”
August 2, 2011
John E. Ellis, MD
University of Pennsylvania School of Medicine

“Thoracic Ultrasound”
August 16, 2011
Joseph Meltzer, MD
UCLA Health System

“Evidence based Trauma Resuscitation, Lessons from Afghanistan”
August 23, 2011
Bruce Crookes, MD
Medical University of South Carolina

“New Development in Anesthetic Management for Renal Transplant”
August 30, 2011
Matthew D. McEvoy, MD
Medical University of South Carolina
I HUNG THE MOON

Don’t forget to nominate your co-workers for going ‘Beyond the Call of Duty’. I hung the Moon slips are available at the 3rd floor front desk, and may be turned in to Rhonda or Kim. Thanks so much!!

Erin Straughan, CRNA: Erin helped finish a case in MRI at 6:45pm and assisted in transplant without having to be asked. Her presence was greatly appreciated! ~ 6/2/2011

Michael Wolfman, CRNA: For giving excellent help! Mike assisted on a Friday in the OR during a series of really difficult cases. His help made all the difference. Mike is an exceptional co-worker! ~ 6/14/2011

Lacey Godeaux, MD: For prepping both the room and the patient on a Sunday morning for the PEDS Call CRNA. Thank you! ~ 7/5/2011

Cara Spaulding: For hard work and taking extra effort to help. Thanks for setting up the heart room while the OR was swamped! ~ 7/5/2011

Heather Highland, CRNA: For being a great leader and very fair with delegating work out. A great team player and fun to work with, a great CRNA! ~ 7/11/2011

Amy Leatherman, CRNA: For volunteering to stay late to finish a case when she was scheduled to be back the next day. Great teamwork! ~ 7/11/2011

Ashley Ceips, CRNA: For being a superstar and helping start a case last minute. ~ 7/12/2011

Lacey Godeaux, MD: For helping out a CRNA that was running late and was swamped with cases. She helped set up rooms and made the morning flow easier. Lacey also helped start the case! “No one else has been quite as helpful, she will make a great attending!” ~ 7/15/2011

Leslie Ancrum, CRNA: On two separate occasions Leslie came in just to help get a case started. A huge help and a great team player! ~ 7/15/2011

Tara Queener, MD: For being happy to help with multiple emergent and urgent cases. ~ 7/22/2011

Wendy Suhre, MD: For doing a great job and advocating for her patients during a very long tough day. ~ 7/22/2011

Alan Mann, MD: Staying late post-call to help with multiple OB emergencies. ~ 7/22/2011

Larry Banks: For giving wonderful assistance at all times. ~ 7/22/2011
Future Events/Lectures
8/1—Perioperative Myocardial Ischemic Infarction (ASA RCL), CA2/3, John E. Ellis, MD (U.PENN)
8/2—Carotid Disease: CEA vs. Stenting; Regional and General Approach, Grand Rounds, John E. Ellis, MD (U.PENN)
8/3—Inhalation Anesthetics, CA1, Eric Nelson, DO
8/8—Systemic and Pulmonary arterial Hypertension “Stoelting Chapter 5”, CA2/3, Kelly Grogan, MD
8/10—Neuromuscular Blocking Agents, CA1, Latha Hebbar, MD, FRCA
8/15—Understanding the CVP, CA2/3, Joseph Meltzer, MD (UCLA)
8/16—Thoracic Ultrasound, Grand Rounds, Joseph Meltzer, MD (UCLA)
8/22—Diseases of the Liver and Biliary Tract “Stoelting Chapter 11”, CA2/3, Latha Hebbar, MD, FRCA
8/23—Evidence based Trauma Resuscitation Lessons from Afghanistan, Grand Rounds, Bruce Crookes, MD (MUSC)
8/24—Nonvolatile Anesthetic Agent, CA1, Julie McSwain, MD
8/29—Vascular Disease “Stoelting Chapter 8”, CA2/3, Eric Nelson, DO
8/30—New Developments in Anesthetic Management for Renal Transplant, Grand Rounds, Matt McEvoy, MD
8/31—Anticholinergic Drugs and Cholinesterase Inhibitors, CA1, David Stoll, MD

Faculty Retreat, Saturday, November 19
Thurmond/Gazes Research Building, Room 125

Holiday Party, Friday, December 2, 2011,
Cottage on the Creek ***NEW LOCATION!!

Check out our website at:
http://www.musc.edu/anesthesia

State of the College Address
Date: Thursday, Sept. 1, 4:00PM
Location: Room 100 BSB

Dean Pisano will be giving a State of the College address this fall. The purpose will be to briefly highlight our accomplishments over the past year and to discuss our plans for the future. All faculty and staff are invited to attend.

The 2011 Lowcountry Heart Walk will be held on Saturday, September 17th

Anyone interested in being a captain on our team, participating in the walk, or for donations see Rhonda Haynes on the 3rd floor of SEI.

For more information visit www.lowcountryscheart.org

We Would Love to Hear From You!
If you have ideas or would like to contribute to Sleepy Times, the deadline for the September edition will be August 22, 2011.