Family instrumental in new hospital design celebrates

BY HELEN ADAMS
adamshel@musc.edu

Christine Middleton feels a sense of ownership as she watches the dedication of the MUSC Shawn Jenkins Children’s Hospital and Pearl Tourville Women’s Pavilion. “I can sit back and say, ‘Jazie, we were part of this.’”

Jazie, or Jasmine, is Middleton’s 15-year-old daughter. Born with the rare genetic condition trisomy 11:20, a chromosome disorder, Jasmine uses a wheelchair and has ongoing health problems, including epilepsy. She’s been in and out of the MUSC Children’s Hospital since she was a baby.

So Middleton knows a lot about what works well in a hospital and what doesn’t. There have been times she felt like she lived in one. “At one point, I really thought that we deserved a suite because we were in the hospital so often and for so long.”

One of Jasmine’s doctors asked Middleton to be part of the MUSC Children’s Health Patient and Family Advisory Council, a team that gives hospital leaders feedback on everything from comfort concerns to potential safety issues.

When it came time to talk about what should go in the new hospital, the council was part of the process. Twenty-six people whose loved ones have been patients at the MUSC Children’s Hospital sat down with architects, nurses and doctors to discuss the design.

Middleton was one of them. She and her husband have logged a lot of hours on hospital room sofas to be by Jasmine’s side, so making the rooms in the new hospital as comfy and family-friendly as possible was a priority. “We’ve never left our child in the hospital by herself. She really can’t sleep by herself. She needs somebody with her at all times in case she has a seizure.”

Thanks to the patient and family council’s input, the new

See FAMILY on page 15

Community dedicates new children’s and women’s hospital

BY LESLIE CANTU
cantu@musc.edu

For the young children on hand, the most memorable part of the dedication of the Shawn Jenkins Children’s Hospital and Pearl Tourville Women’s Pavilion might have been the snacks afterward. But for their parents and the other adults present Aug. 9, the thought of what the building represents was most inspirational.

The site along Calhoun Street, with views of the Ashley River, Charleston Harbor and the city, could have become another condo development or corporate office building, Benefitfocus founder and hospital namesake Shawn Jenkins told the crowd of 1,000 gathered outside the new structure.

Instead, he said, “In this community, Charleston, in the state of South Carolina,
you guys came together and said, “We think the best use of $400 million, and perhaps the nicest lot in the whole state, is to build a place for these kids who are enduring a difficult time.”

The hospital will open in October after five years of construction and years before that of planning. Yet the dedication marked not an end but a beginning, Jenkins said.

“This is the beginning of the journey. We’ve got research to do. We’ve got procedures to do. We’ve got people to recruit,” he said.

The building was designed with input from doctors, nurses and patient families from the very beginning, said Kelly Loyd, a volunteer family advisor. Loyd’s twin daughters were born almost 12 weeks premature. One spent 31 days in the hospital and the other 77. Loyd urged the audience to imagine what it’s like to live in a hospital at a child’s bedside for days, weeks or even months at a time, and she thanked the other volunteer advisors, including those whose children had died, for being willing to speak up about their experiences so other families could have a better experience.

“Partnering with patients and families in the delivery of care, whether it’s designing and figuring out how best to work in a new building, being present for nursing change of shift or participating in care team rounds, isn’t just a warm and fuzzy thing to do. It improves the quality and safety of a hospital and creates the opportunity for patients and families to be engaged in their health care journeys,” she said.

The building is part of an overall plan to provide outpatient care close to where people live while caring for the sickest patients in specialized facilities, said MUSC Health CEO Patrick Cawley, M.D. That means building outpatient facilities throughout the area, like the MUSC Children’s Health R. Keith Summey Medical Pavilion in North Charleston, which opened in the spring. It also means investing in a children’s and women’s hospital downtown where doctors and nurses can collaborate to provide the latest care.

“They already deliver incredible outcomes for the children we serve in the current facility that was built in the 1980s,” Cawley said. “Think about how far we’ve come in health care since then, especially for children. Just imagine what these providers will do, like those caring for patients in South Carolina’s only pediatric burn center, the only solid organ transplant program, the only Level 1 pediatric trauma center and so many more. Think about what they will be able to do when we open these doors to our statewide community in a short eight weeks. They will simply fly.”

Jenkins noted that the hospital was built with future innovation in mind. Space was left above ceilings so that some future invention not even dreamed of yet could one day be installed to improve care even more.

During the program, MUSC President David Cole, M.D., FACS, recognized donors, legislators and local leaders who made the construction possible. But he also noted that more than 7,811 people made nearly 15,000 donations to the building, raising $146 million toward the construction cost. He also acknowledged the 4,300 construction workers who “poured their hearts and souls into the project, knowing this building will be part of their legacy.”

Cawley additionally noted that the project had a goal of 30% of the work being done by small-, women- and minority-owned businesses but actually achieved a 48% percent participation rate.

“If we work together, there’s no stopping what we can do for these children to make this the best place on Earth to live, work and raise a family,” said Gov. Henry McMaster. “I want to congratulate you and thank you for this great step forward.”

Some patients got a tour of the hospital July 30. From left, David Powell, Lucas Parra and Della Powell got to see where future patients will be cared for. The hospital is slated to open in October.
Dear MUSC students,

I would like to extend a warm “welcome back” to each of you returning this semester to continue your education! I hope you all had a great summer and that each of you took whatever time you could to relax and refresh as you prepare for the next semester.

It is also my pleasure to congratulate those of you who are new students on your acceptance to MUSC and thank you for choosing MUSC for your education. I imagine that many of you have mixed emotions ranging from excitement to sadness, as you leave family and friends, to anxiety about the challenges you might face as you enter this next phase of your education. Please know that we are committed to providing you not only with an excellent education but with the support necessary to help you reach your goals. The majority of those who can provide direct support to students are in the Division of Education and Student Life, and I hope you check out their website to familiarize yourself with all they have to offer.

As you begin this academic year, I encourage you all to strive to maintain a healthy lifestyle and to carve out time for activities that bring you joy. Caring for yourselves should be a constant goal that will help you manage stress and overcome difficult situations. I know that positive change and spark powerful dialogue. We also offer an abundance of social, cultural, educational and service programming throughout the year. All of our programs, events and SGA meetings are open to every student here at MUSC. I encourage you to take advantage of the programming SGA offers as well as your SGA representatives. Share your ideas and your frustrations with your representative or consider becoming a representative yourself.

This year, our executive team outlined initiatives centered on further improving the interprofessional culture on campus through changes to our service and educational programming. We look forward to working with you as we make these changes to improve the quality of the student experience. Please don’t hesitate to reach out with any questions or concerns as you navigate this year. Lastly, stop by our table at the student activities fair on Sept. 5 – we would love to meet you!

– Austyn Posey, MUSC SGA president, College of Pharmacy 2020, sga@musc.edu

Lisa K. Saladin, PT, Ph.D.
Executive Vice President for Academic Affairs and Provost

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**A letter from the SGA President**

Welcome (back) to MUSC!

Congratulations to those of you who are new to the MUSC family! A special “congratulations” is also due to those of you who are back to take on another semester. I hope you all were able to take some time for yourselves this summer to relax and refuel for what’s ahead. Another semester means more quizzes, exams and time in the lab, but it also means more opportunities for interprofessional collaboration and some fun along the way. While this semester is sure to be a roller coaster, remember that you deserve to be here and that you have a team of people around you who are eager to help you succeed.

I hope that through your orientations or through your time on campus you have been introduced to the Student Government Association (SGA). Our role is to improve the quality of the student experience at MUSC by providing a link between students and administration. We strive to unify the voices from each of our six diverse colleges to enact positive change and spark powerful dialogue. We also offer an abundance of social, cultural, educational and service programming throughout the year. All of our programs, events and SGA meetings are open to every student here at MUSC. I encourage you to take advantage of the programming SGA offers as well as your SGA representatives. Share your ideas and your frustrations with your representative or consider becoming a representative yourself.

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**HURRICANE PREPAREDNESS**

Hurricane Season is June 1 - November 30, 2019

Students and Post Doctorates who are without a safe location to evacuate are responsible for registering for assistance.

Students will not be allowed to stay on campus if a mandatory evacuation is called.

If you cannot evacuate yourself to a safe location, you will be transported from the university to a community shelter.

Register for:
- Evacuation Assistance: education.musc.edu/students/sspfd/communications/hurricane
- MUSC ALERT: musc.edu/muscalert

Find information during an emergency by calling (843) 792-MUSC

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– Austyn Posey, MUSC SGA president, College of Pharmacy 2020, sga@musc.edu
MUSC grads grow family to four, thanks to collaboration for moms to be

BY LESLIE CANTU
cantul@musc.edu


A small army awaited a terrified Emrys Hamidi as she was wheeled into a trauma operating room at University Hospital for a C-section that would hopefully save her and her baby from a life-threatening condition.

And then she recognized the room. The last time she’d been in it, she was a student at the MUSC College of Medicine. And the patient had died.

They say ignorance is bliss, but Emrys and her husband, Amid Hamidi, didn’t have that luxury. Both practicing doctors, they graduated from MUSC in 2016 and began working as residents at McLeod Family Medicine Center in Florence. They were well aware of the danger when an ultrasound during Emrys’ second pregnancy indicated she might have placenta accreta — a condition in which the placenta has attached too deeply to the uterine wall.

In the worst-case scenario, the placenta can actually grow through the uterus and attach to a nearby organ, like the bladder. It’s a condition that’s rare but increasing.

“My first 10 years in OB, I maybe did two accretas. Now we do one per month, so there’s a bit of an epidemic of these,” said Scott Sullivan, M.D., director of the Division of Maternal Fetal Medicine at MUSC. Doctors think the increase in C-sections may be partly to blame for the rise in placenta accreta cases.

“They’re very scary procedures if done in a place without resources or if it’s unexpected.”

Because the placenta is attached to the uterine wall, it often won’t deliver properly during childbirth, causing severe hemorrhaging and even death. For that reason, doctors schedule a C-section and hysterectomy around the 34-week mark of pregnancy, well before the woman would go into labor but far enough along that the baby has a good long-term prognosis, Sullivan said.

The Hamidis had seen placenta accreta during their training. “That’s why I was so scared. The last lady I saw with accreta almost died,” Emrys said. Besides Emrys’ condition, the couple was also emotionally preparing for potential effects on their son from amniotic band syndrome, in which a band entangles around a limb, cutting off blood flow.

The couple spent a day at Johns Hopkins Medicine in Maryland, consulting with specialists there. The Johns Hopkins doctors were magnanimous with their time, Amid said, but in the end, all agreed that the Hamidis should choose a hospital closer to home. The couple felt confident in the medical team at their alma mater.

And as it turned out, their timing was good. MUSC Women’s Health had just officially christened its Center for Placenta Accreta Spectrum, though it had been offering services for a few years. And thanks to the trauma team at MUSC Health, the center was instituting a new surgical procedure meant to stop massive hemorrhaging to give surgeons time to track down and repair the source of the bleeding.

**BATTLEFIELD CARE FOR BIRTH**

On the other side of the MUSC campus in downtown Charleston, the trauma program had started using a special catheter with the long-winded name of resuscitative endovascular balloon occlusion of the aorta — the doctors just call it REBOA.

The basic idea has been around since the Korean War, said trauma surgeon Evert Eriksson, M.D. A doctor threads a thin tube carrying a deflated balloon into the artery in the thigh and up to the aorta, the body’s main artery. When it’s in place, the doctor inflates the balloon, which blocks blood flow from the aorta into the lower portion of the body.

At that point, the clock is ticking. Cut off the blood flow for too long and serious damage can occur. But blocking the bleeding should bring the patient’s blood pressure back up to a normal reading and give surgeons time to make repairs. The alternative, Eriksson said, is cracking open the patient’s chest to physically clamp the aorta.

Although the idea itself isn’t new, an updated version developed by military doctors proved easier to use in the field and also led to a significant drop in complication rates, Eriksson said. The device came on the civilian market in 2016 and increasingly, hospitals have been adopting its use.

Trauma program manager Shawn Crowley, the doctors just call it REBOA.

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Trauma program manager Shawn Crowley,

**See Moms on page 14**

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The Hamidis are a healthy family of four – an outcome that wasn’t assured when they learned that Emrys had a condition called placenta accreta.
Meet Melissa

Melissa Evans

Department; How long at MUSC
MUSC Children’s Health Pediatric Critical Care; Almost 10 years

How are you changing what’s possible at MUSC
I’m the medical director of the PICU and stepdown units so we have been busy getting ready for the big move into the new hospital this fall. There is so much change that is coming in a few short months so I try to keep a positive attitude, stay focused on goals and be a cheerleader for the team when they’re feeling overwhelmed.

Family, pets and their names
Husband, Jeff, teenagers, Kailyn (18) and Aiden (15); Sullivan, a greater Swiss mountain dog, plus a slew of other pets

Favorite football team
Philadelphia Eagles

Greatest moment in your life
Realizing we’ve raised really good kids

Favorite quote
“...a person’s a person, no matter how small.” — Dr. Seuss (Theodor Geisel)
Nurses, doctor celebrate centennial milestone with beloved patient

BY HELEN ADAMS
adamshel@musc.edu

The nurses are nervous. They aren’t sure how Marguerite Gussenhoven will react when she realizes they’ve brought in balloons, cupcakes and presents to celebrate a milestone that she once thought she’d never see: her 100th birthday.

Gussenhoven is beloved in the Heart and Vascular Center at MUSC Health, known for her dry wit and sharp mind. She’s also the longest-living participant in a clinical trial that showed cardiac resynchronization therapy, or CRT, can help people in the early stages of heart failure.

On this day, before one of her twice-a-month checkups, she walks down the hall with her daughter, Peggy Reeves. The nurses, along with cardiologist Michael Gold, are waiting.

“Ready! Here we go. Happy birthday!” they cheer as the women enter the room.

“Oh my Lord,” Gussenhoven responds with a huge smile on her face.

Nurse Deana Baron, who organized the party, gives her a hug. “We love you. You know that, right?”

Gussenhoven answers: “Gosh, I feel wonderful! I really don’t mind being 100 at all with y’all.”

She’s come a long way from the day 13 years ago when her daughter was afraid she was about to lose her due to heart failure. “She was dying,” Reeves said. “And I sat in my kitchen one morning and I thought — I’ve got to do something.”

She called a friend at MUSC who connected her mother with the heart team. Gold, a professor in the College of Medicine who specializes in treating people who have heart failure, said she was a good candidate for the MADIT CRT study.

“It was a trial for pacing both sides of the heart, which we were already doing in patients with severe heart failure. In people with mild heart failure, we were trying to see if we could prevent progression,” Gold said.

“It was a very important study that got published in the New England Journal of Medicine and changed how we approach patients with mild heart failure to prevent them from getting worse. She’s as good an example as you’ll see. Her heart completely normalized with this. She’s been able to live to be 100 and has not been hospitalized for heart failure since then.”

After getting the CRT device, Gussenhoven was able to go back to playing golf, walking her dog and enjoying life, her daughter says. The nurses and Gold sing happy birthday to Gussenhoven and she opens her gifts, enjoying the scented oil and lotion they’ve given her.

“This is a wonderful day,” she says, then adds with her trademark wit: “I’m going to expect great things if I ever come back.”
A year later: MUSC, Siemens Healthineers partnership shows progress

Collaboration brings forth digital advances, new understanding and improvements in patient care

BY CINDY ABOLE

Last August, MUSC and medical technology leader Siemens Healthineers entered into a first-of-its-kind partnership to advance health care with transformational engineering innovations and solutions and to improve workflow capabilities that would provide people with the best patient-centered care. A year into the partnership, leadership teams from MUSC and Siemens Healthineers continue to meet regularly to work on collaborative projects throughout the clinical enterprise, which has led to substantive progress, innovations and improvements in stroke, pediatrics and radiology services.

MUSC President David J. Cole, M.D., FACS, sees firsthand how this partnership drives performance and sparks innovation and excellence through these new projects and ideas.

“It has been an honor to work with colleagues at Siemens Healthineers over the past year to set the strategic vision and oversee the plans for the partnership,” said Cole. “As a member of the joint oversight committee, we have approved several innovative projects that are being operationalized by clinicians, staff and the Siemens Healthineers team members as we speak. It is exciting to see our vision unfold, as we embark on this journey together to advance value-based care and reimagine how health care is delivered.”

The Department of Radiology and Radiological Sciences, MUSC Health leadership and Siemens Healthineers partnership teams began meeting almost immediately to work on several components of the agreement, according to Mike Ricciardone, director of Radiology Services and administrator of Radiology’s collaborative Integrated Center of Clinical Excellence (ICCE).

A multidisciplinary radiology team, working under the guidance of Siemens Healthineers experts, is evaluating and improving workflow issues, using better technology and best practice processes. Another team involving radiologists, surgeons and technologists, as well as other stakeholders, is evaluating imaging modality platforms from Siemens Healthineers — something that’s not been done previously by MUSC Health. As a result, Siemens Healthineers’ digital C-arms, which are used as X-ray guidance tools during surgery or procedures, have been adopted as standard equipment by MUSC Health.

Also, radiology project team members have collaborated with Siemens Healthineers analytics and workflow experts on three efficiency improvement charters. These charters have been selected in radiology modalities that have high patient demands. The Siemens Healthineers team has shared operational metrics, goals and initiatives that include efficient patient scheduling and improvements to scanning and processing of studies and patient experience metrics.

Ricciardone summed up the year’s progress in Radiology Services as transformational.

“As a longtime MUSC Health radiology leader, it is personally encouraging and gratifying to witness our staff care team members working so closely and carefully with our Siemens Healthineers partners for the betterment of our patients, our referring providers and all of our Radiology and other MUSC Health care team members,” he said.

Scott Steingall, principal consultant and imaging expert, Consulting & Transformation Services, Siemens Healthineers, is also pleased with the collaboration within the joint MUSC-SHS radiology project team.

“The team just completed their first Kaizen event to drive a newly created future state,” he said.

“Creating sustainable change takes time, and outcomes will come,” Steingall said. “The biggest outcome to date is the amount of staff engagement and involvement. Engaged staff will result in satisfied patients.”

The area of stroke care underscores yet another example of collaborative progress. Christine Holmstedt, D.O., medical director of clinical stroke services and co-director of MUSC Health’s Stroke Program, said the stroke team has been focusing on reducing a stroke patient’s length of stay (LOS), as LOS issues related to stroke patients, more so than other patient populations, can present particular challenges.

Using a multidisciplinary approach that includes physicians, nurses, rehabilitation therapists and case managers, the team is evaluating this LOS issue, Holmstedt said.

Additionally, this team is working with the Stroke Bundle group to reduce care working on completing the tasks to drive the newly created future state,” he said.

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Celebration: Dedicating the MUSC Shawn Jenkins Children’s Hospital and Pearl Tourville Women’s Pavilion

After years of anticipation, dedication day for the MUSC Shawn Jenkins Children’s Hospital and Pearl Tourville Women’s Pavilion finally arrived. The enormous white tent filled with nearly 1,000 people overflowed with lively voices and contagious excitement. Even the 100-plus-degree heat index couldn’t dampen spirits. The governor, MUSC leaders, donors, patients and families, staff and guests ignored the heat and hung on every word, as speakers extolled the facility’s cutting-edge features, as well as what it will mean to the state of South Carolina to have the most technically advanced children’s hospital in the country. While it was impossible to catch all the special moments, here is a sampling of the heartfelt joy the MUSC family experienced.

Photos by Sarah Pack and Anne Thompson
Transforming how care is delivered with...

**250 licensed beds | More than 27 pediatric specialists**

**AN ADVANCED FETAL CARE CENTER**

**THE ONLY LEVEL 4 NICU**
in South Carolina

- 2 entire floors dedicated to children with heart problems & cancer/blood disorders
- Advanced and carefully-integrated telehealth technology throughout the facility, allowing unprecedented coordination and engagement with patients, families and care team members

**$7,729 donors & 14,776 gifts** made to the campaign

**22,000 lb. helicopter**-Rooftop helio-pad, engineered to accommodate the Coast Guard’s Jayhawk helicopter for emergency & disaster situations

**Labor and Delivery Unit**
- 2 obstetrical operating rooms
- 29 mother/baby post-partum rooms
- 5 antepartum rooms
- 7 couplet care rooms

**Indoor & outdoor child-life play spaces**, called The Jerry and Anita Zucker Family Atrium & The Boeing Outdoor Play Space

**Throughout the construction of the new hospital, MUSC...**
- Built facility consisting of 11 stories and 625,000 square feet
- Worked with Charleston and South Carolina based companies
- Employed 4,000+ workers during a 40-month period
- 61% of 2 million labor hours was provided by the South Carolina workforce
- 48% of the work was done by small-, women-, and minority-owned business enterprises

*Conceived and Designed by Families and Care Team Members*
2019 MUSC Convocation/Foundation Awards

The 2019 annual MUSC Faculty Convocation took place Aug. 20 at the Drug Discovery Building. The faculty awards were presented in the following categories: Teaching Excellence, Distinguished Faculty Service, Developing Scholar, Peggy Schachte Research Mentor, Population Health, Outstanding Clinicians and Commitment to Excellence in Interprofessional Education and Collaborative Practice.

Teaching Excellence Awards
• Developing Teacher
  • David C. Fitzgerald, M.P.H., C.C.P.
  Clinical coordinator and assistant director, Cardiovascular Perfusion Program, College of Health Professions
• Educator – Lecturer
  • Gilbert A. Boissonneault, Ph.D., PAC, DFAAPA
  Professor, College of Health Professions
• Educator – Mentor: Academic/Scholarship
  • Yuri K. Peterson, Ph.D.
  Research associate professor, Department of Drug Discovery and Biomedical Sciences, College of Pharmacy
• Distinguished Faculty Service Awards
  • Thomas Brothers, M.D.
  Professor, Department of Surgery, College of Medicine
  • Tariq Javed, D.M.D.
  Vice dean and Professor, James B. Edwards College of Dental Medicine
  • Sally Webb, M.D.
  Professor, Department of Pediatrics, College of Medicine
• Developing Scholar Award

2019 awardees include first row, left to right: Dr. Danielle Scheurer, Dr. Stuart Leon, Dr. Yuri Peterson, Dr. Carla Danielson, Dr. Janice Key. Middle row: Dr. Sally Webb, David Fitzgerald, Dr. Bradley Presley, Dr. Gilbert Boissonneault. Back row: Dr. Tariq Javed, Dr. Graham Warren, Dr. Shaun Olsen, Dr. Thomas Brothers. (Not pictured: Dr. John Wrangle)

• John Wrangle, M.D.
  Assistant professor, Department of Medicine—Hematology/Oncology, College of Medicine
• Shaun Olsen, Ph.D.
  Assistant professor, Department of Biochemistry & Molecular Biology, College of Medicine
• Peggy Schachte, Research Mentor Award
  • Carla Danielson, Ph.D.
  Professor, Department of Psychiatry & Behavioral Sciences, College of Medicine
• Population Health Awards
  • Graham W. Warren, M.D., Ph.D.
  Professor and vice chairman for research in Radiation Oncology, Department of Cell and Molecular Pharmacology & Experimental Therapeutics, College of Medicine
  • Janice D. Key, M.D.
  Professor, Department of Pediatrics, College of Medicine
• Outstanding Clinician Awards
  • Stuart M. Leon, M.D.
  Professor, Division of General Surgery, Department of Surgery, College of Medicine
  • Bradley C. Presley, M.D.
  Associate professor, Department of Emergency Medicine, College of Medicine
• Commitment to Excellence in Interprofessional Education and Collaborative Practice Award
  • Danielle Scheurer, M.D.
  Chief Quality Officer, MUSC Health
Convocation speaker returns to promise of technology in health care

BY LESLIE CANTU
cantu@musc.edu

Electronic health records get a bad rap. Maybe not completely undeserved, but electronic health records, or EHRs, are on the verge of living up to their promise of more than a decade ago, said David McSwain, M.D., associate professor in the MUSC College of Medicine and chief medical information officer for MUSC and MUSC Health, during his faculty convocation address on Tuesday.

People forget the “bad old days” of hiking across the hospital and up or down several floors to retrieve X-rays – and then discovering that someone else had gotten to them first – or of attempting to decipher the handwriting of multiple doctors to understand a patient’s overall care plan, he said. EHRs have already improved day-to-day life in those respects.

EHRs get much of the blame for physician burnout because the technology is the thing that’s right there, staring you in the face, he said. But a lot of burnout is really attributable to the burden of increased regulatory, billing and compliance requirements that grew up within strict parameters, ensuring the apps are easy to use.

“You can utilize that phone in a way that works for you, so it’s an extension of your brain. That’s how it’s intuitive,” he said.

Similarly, EHRs should be standardized at the institutional level but allow for personalization at the user level.

“The key is we have to build in personalization tools – and we are building in personalization tools – that allow you to make your experience with health care technology work the way you need it to work for what you’re trying to do for your patients,” he said.

And with the opening of the Shawn Jenkins Children’s Hospital and Pearl Tourville Women’s Pavilion in October, MUSC Health is pioneering new technology that it’s co-developing with industry leaders, McSwain said.

The goal is to reinvent rounding, the practice of teams of doctors visiting each patient each day.

The initial vision was to eliminate rolling computer workstations and do everything with an iPad, but that wasn’t possible because of current limitations on how iPads interact with Epic, MUSC Health’s electronic health record system, McSwain said. However, as much as possible, doctors will use iPads, he continued. They will be able to enter a room and use the iPad to show information on a large screen in the room, including X-rays, scans, lab results and patient education screens.

“This is something that MUSC is doing that no one else in the country is doing. We are really, truly leading the way in health care innovation,” McSwain said.

In his closing remarks, he said the university’s students need to learn how EHRs work, and they need to learn before they start interacting with patients.

“Our students need to be educated on technology the same way they’re educated on how to conduct a physical exam.”

David McSwain

Photo by Anne Thompson

Dr. David McSwain, chief medical information officer for MUSC Health, addresses the crowd during the Aug. 20 convocation ceremony.

“Our students need to be educated on technology the same way they’re educated on how to conduct a physical exam.”

The key, he said, is personalization. iPhones allow end users almost endless personalization as they choose which apps to install and where to place their icons, but, he added, Apple requires app developers to stay within strict parameters, ensuring the apps are easy to use.

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MUSC Board of Trustees Meeting

MUSC and Medical University Hospital Authority (MUHA) Board of Trustees held their regularly scheduled meeting to receive reports on academic programs, research and clinical operations.

During his annual report to the board, David J. Cole, M.D., FACS, MUSC president, said, “In fiscal year 2019, our institution made significant progress on a number of fronts, including key additions to the leadership team and advancing our institutional strategy. We’ve also started strong in 2020 with well-deserved recognition for our award-winning health system and with new planned projects coming online.

“MUSC is extending the reach and scope of our quality care to new locations throughout the Charleston area and across the state.” Cole added, “Our strategic efforts to build a health system that enables best care locally with the integration to provide the right care at the right time and place are already having an impact for our patients, families and communities.”

“The MUSC administration and our board members continue to focus not only on what our community needs now but also on what our state and region will need in years to come,” said Charles W. Schulze, CPA, chairman of the MUSC board. “The dedication ceremony being held tomorrow for the MUSC Shawn Jenkins Children’s Hospital and Pearl Tourville Women’s Pavilion serves as a testament to our emphasis on changing what’s possible today and as an indicator of even more advances on the horizon.” Schulze added, “This board looks forward to helping guide and fuel the three-part education, research and patient care mission designed to serve the people of our state, region and beyond.”

The highlights Cole shared included:

- Hiring Stuart Ames as the new CEO for the MUSC Foundation, the more than $627 million asset-based charitable foundation that supports the MUSC mission dedicated to education, research and patient care.
- Updating on the 10-year partnership with Siemens Healthineers to transform health care delivery through joint innovation and performance excellence. Siemens Healthineers is a global company that harnesses engineering, business and research expertise to enable health care providers worldwide to increase value to consumers.
- Briefing on the five-year value-based health care partnership with Medtronic, the world’s largest medical device and solutions company, to improve quality and decrease costs.
- Completing the acquisition of four CHS-affiliated community hospitals and transforming them into the MUSC Health Regional Hospital Network.
- Forging innovative relationships to support and redefine how rural health care is delivered. Letters of intent were signed with Williamsburg Regional Medical Center and Lake City Community Hospital.
- Signing a contract with the South Carolina Department of Health and Human Services and Hampton Regional Medical Center.
- Providing milestones in five colleges. Among the achievements noted were:
  - The College of Dental Medicine was the first dental school in the nation to receive Or Intraoperative Neuromonitoring or just look at the newly implemented an innovative FLEX curriculum demonstrating to this innovative technology during their training.
  - U.S. News & World Report rankings placed the College of Health Professions Physician Assistant program No. 46, in the top 20%, and the Master of Health Administration was No. 20 among 75 ranked programs.
  - The College of Nursing raised nearly $3.5 million for scholarships in two years and is now able to award scholarships to more than 45% of students.
  - The College of Pharmacy students registered a first-time board exam (NAPLEX) pass rate of 94.7%, above the national average of 89.5%. Plus, the Pharmacy students’ residency match rate was 90.6%, well above the national average of 65.4%.
  - MUSC Health University Hospital was ranked by U.S. News & World Report, for the fifth consecutive year as the No. 1 hospital in South Carolina.

The usual two days of committee and board meetings were held on one day to accommodate the Friday, Aug. 9, dedication ceremony for the MUSC Shawn Jenkins Children’s Hospital and Pearl Tourville Women’s Pavilion. When it opens in October, the new $385 million children’s hospital will be the most technologically advanced facility of its kind in the country.

The MUSC/MUHA Board of Trustees

**Clinical Neurophystiology Open House Aug. 29**

**Thursday, Aug. 29**

10:30 to 12:30 a.m.

**University Hospital, Third Floor Room 396 (by Elevator C)**

Ever wonder what Clinical Neurophysiology does or where we are? Here’s your chance to come find out more about EEG or Intraoperative Neuromonitoring or just look at the newly improved area.

MUSC Board of Trustees, visit: http://academicdepartments.musc.edu/leadership/board/index.html.

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Eric A. Draper 843-442-7118
GYN to see if they might be interested in using REBOA at MUSC Health to use in the Emergency Department for patients bleeding in the belly.

They decided to call their colleagues in OB-GYN to see if they might be interested in using the new device.

Evolving Care

“What started as a phone call has turned into national research, which is exciting,” Sullivan said.

When Eriksson called, Sullivan and his team began to research the use of REBOA during C-sections to deliver patients with placenta accreta. There wasn’t a lot of information out there, but using REBOA seemed to make sense. Like trauma cases, placenta accreta patients can suffer massive bleeding. The alternative for pregnant patients, though, isn’t to crack open the chest but to pack the pelvis with large gauze pads to staunch the bleeding.

But there’s no guarantee that maneuver will work, Sullivan said. “It’s kind of a desperate move at that point.”

After doing their homework for several months, the obstetric team decided to move forward with using REBOA. Since implementation, the team has been collecting data on outcomes and pooling it with other researchers, particularly Texas Children’s researchers, particularly Texas Children’s Pavilion for Women in Houston, Texas.

“Any time you innovate, you want to double-check yourself. Is it really adding value? And you want to let other people know about it to increase the knowledge,” Sullivan said.

Sullivan saluted trauma team members for their willingness to collaborate on obstetric cases. “They’ve been very gracious,” he said.

Oncologists are also part of the team because the placenta accreta acts very much like a tumor – invading other tissues and bleeding a lot. The oncologists’ experience operating on very sick patients and minimizing injury to other tissues adds another layer of expertise for the patient.

On the day of delivery, the trauma team preps each placenta accreta patient before the C-section begins so the REBOA technique can be used if needed. Sullivan said he thinks that they end up needing it about half the time, but with only one to two cases per month, there’s not enough data yet to definitively say how often it’s used.

Sullivan said he always warns patients ahead of time that the operating room will be full. Most patients have had prior C-sections and might expect to see eight to 10 medical personnel, but in these cases, there will be 45 to 50 people, Sullivan said.

“It’s impressive when you see it. You always know that MUSC has all this talent, all these resources. But when you see it right in front of you, in action, it never fails to impress,” he said.

All that preparation and teamwork paid off for the Hamidis.

Birth Day

When Emrys was rolled into the operating room, she was terrified but also felt like she was surrounded by the right people.

The trauma team prepped her for REBOA, and then the obstetric team began the C-section.

“Despite this being a complicated case, Dr. Latha Hebbar, Dr. Mary Sterrett, Dr. Sullivan and the rest of them in the room really helped us feel like this is still a delivery. This is not a trauma,” Amid said.

The delivery was calm, Amid said. But as he was doting on their son, he glanced over and saw that Emrys’ blood pressure was dropping. She was hemorrhaging. Quickly, the trauma team stepped in and inflated the balloon to block blood flow and allow surgeons to continue the hystectomy and make repairs.

“One thing if it wasn’t done in the fashion it was, my wife wouldn’t have made it past that dropping of the blood pressure,” Amid said.

“All of that was forethought as much as it was medical prowess,” he said. “Had they tried to place it emergently, once things were going sideways, it would have been too late. She would have probably bled out in two minutes. It wouldn’t have been enough time to place it.”

As for Emrys, she remembers seeing their son and then nothing until she woke up in the intensive care unit.

Her experience strengthened her empathy for patients, she said. She knows the feeling of life crashing down around you and having no control over the situation, and it has emphasized for her how important the human aspect of medicine is.

She’s also passionate about addressing the high maternal mortality rate in the U.S., particularly for black women. South Carolina ranks among the 10 states with the worst rates of maternal deaths, with a state committee determining that 54 percent of the deaths between 2016 and 2018 were preventable. As she completes residency and begins work as a family medicine doctor in underserved communities, Emrys is committed to providing culturally competent care for those who most need it.

Sullivan said prenatal care is critical to catching issues, like placenta accreta, that contribute to the state’s maternal death rate.

The good news is he’s seen an increase in referrals when obstetricians see something suspicious on an ultrasound. Just as important as the diagnosis is planning for the delivery and ensuring the patient is cared for at a tertiary care center, he said.

“It’s no knock on the smaller centers. They’re great surgeons. It’s that they don’t have the oncologists and the trauma surgeons and REBOAs — all of the resources that we’re blessed to have here,” he said.

Amid and Emrys are thankful for all the doctors at MUSC Health. Maternal fetal medicine fellow Mary Sterrett, M.D., was their primary point of contact, and Amid said she went above and beyond to make sure everything was addressed.

“She’s the type of doctor I hope I will be one day,” he said, adding that Latha Hebbar, M.D., director of Obstetric Anesthesia, was “an angel from on high.”

Amid also got the chance to say “thank you” to the men who made REBOA at MUSC possible. In June, Amid, who intends to go into emergency medicine, attended an advanced trauma life support course at MUSC organized by Crowley.

Crowley was stunned when at the start of the day, Amid walked up to the team and said, “You saved my wife’s life.”

The stars aligned for the Hamidis – they had access to an academic medical center where doctors stay on top of the latest research; where a doctor in one department was willing to pick up the phone and suggest a new procedure to a colleague in a different department; and where that colleague was open to new ideas.

Because of all this, the Hamidis are now a family of four – Amid, Emrys, daughter Nayyerah and son Abbas.

And on July 10, they celebrated Abbas’ first birthday.

“This past July 10 was a very happy day – because last July 10, I wasn’t sure I’d make it out,” Emrys said.

Moms Continued from Page Four
PARTNERSHIP  Continued from Page Seven

Costs and improve patient outcomes ensuring specific interventions or processes are performed together and not separately to ensure efficiency. A separate project involves evaluating unnecessary stroke patient transfers through improved patient selection, results of which recommend longer recovery time for patients at community hospitals along with a telemedicine follow-up.

Holmstedt is very pleased with the results. “We have noticed a reduction in a patient’s length of stay, which leads to reduced in-hospital complications; improved patient outcomes; improved patient, family and provider satisfaction; and reduced costs,” she said.

Mark Scheurer, M.D., chief of Children’s and Women’s Integrated Center of Clinical Excellence, is excited about the cutting-edge technology, digital advances and workflow efficiencies that are being introduced in the new MUSC Shawn Jenkins Children’s Hospital and Pearl Tourville Women’s Pavilion, slated to open in October.

“Digital twin technology,” a form of artificial intelligence that creates a digital replica of any physical asset, process or system, is among the partnership’s highlights in children’s health. A digital twin of the new facility has been created and now is being used with planning teams to test hospital processes and workflow changes prior to trying them out in reality, Scheurer said, adding that when the hospital opens in October, it will be the most technologically advanced children’s hospital in the country.

“We feel confident that this digital twin technology will be instrumental in maximizing efficiency and optimizing the patient and family experience at the new MUSC Shawn Jenkins Children’s Hospital and Pearl Tourville Women’s Pavilion. These revolutionary digital advances will ultimately enable our providers to get better outcomes at a lower cost, by helping them forecast how well possible workflow solutions or health innovations may actually work in our new facility,” he explained.

Kristen Juarez is a principal consultant and clinical expert in Consulting & Transformation Services with Siemens Healthineers. She has assisted in leading the joint team, establishing the digital twin technology and other projects for the opening of the new hospital.

“The joint structure of the projects has produced a collaborative environment where we have been able to learn from one another and share creative ideas while exploring innovative ways to provide care to patients and improve the staff experience. This has led to some exciting project work with anticipated outcomes soon to come,” said Juarez.
Dale Middleton, center, joins daughter Jasmine Middleton, left, and wife, Christine Middleton, at the Aug. 9 dedication event of the MUSC Shawn Jenkins Children’s Hospital and Pearl Tourville Women’s Pavilion.

**FAMILY** Continued from Page One

hospital’s patient rooms are at least 80% bigger than in the current hospital. The furniture in the kids’ rooms is more comfortable, too. It’s better suited to overnight stays. And families will have access to kitchens, places to wash and dry clothes, showers and a cafeteria that’s centrally located so they’re always close to their kids.

Middleton also recommended that the new hospital make room for wheelchairs everywhere. “When you go into an exam room, it needs to be able to accommodate a wheelchair. Same thing if you’re in a waiting area – if there are several people in wheelchairs, they all need enough space to fit comfortably.”

And she told the planners the new hospital needs to help parents take care of children with special needs as they grow up. “They have all those changing tables around the old hospital, but what do you do for a child who’s over 50 pounds? You can’t put them on a changing table. I did it one time in the dental clinic, and the whole thing collapsed on me.”

She and her fellow council members didn’t hold back. They wanted to make the new hospital as great as possible, not only for themselves but also for the families who will need it in the future. “It feels really good to be a part of the process, because it enhances service for all involved, and to see it come to fruition makes you feel really good. I think it’s going to be a great improvement.”

The Shawn Jenkins Children’s Hospital and Pearl Tourville Women’s Pavilion will open in October.

**David Kent and Charlotte Lemon**

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**David Kent** 24 years
843.606.0824
David@BuyersAgent.Net
www.DavidKent.Net

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