



Photo by Sarah Pack

Dr. David McSwain, far right, conducts a telehealth demonstration for guests at the Center for Telehealth Open House on June 30.

New MUSC Telehealth Center opens

By MIKIE HAYES

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Seconds matter. When a critically ill or injured child or patient suffering an ischemic stroke is rushed to an emergency room for care, time is of the essence.

And while emergency room personnel never know exactly what a day may hold in store for them, they want to be ready for any contingency. Sometimes, however, that just might not be possible.

With today's health care economic realities, most community and rural hospitals can't afford to have their own dedicated specialists like pediatric critical

care intensivists or stroke experts — highly trained doctors who are typically the best qualified and experienced to treat the most critically ill patients.

Today, however, MUSC can put those experts virtually at the bedside of patients throughout the state.

Through the MUSC Health Center for Telehealth, in addition to hospital-based programs, there are several outpatient programs where urgent, primary and

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New provost continues to break glass ceiling

By MIKIE HAYES

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When Lisa Saladin and her husband Mike accepted faculty positions at MUSC in 1990, their intention was to stay for one year, then return home to Canada. But life had considerably different plans for the couple. They quickly fell in love with MUSC, Charleston and the people, and 27 years later, not only are they still here, she was recently named to the No.2 university position — executive vice president for academic affairs and provost. And while it's not the trajectory she as a young physical therapist ever could have envisioned, being tapped for myriad leadership positions happened organically, as mentors along her professional path recognized her potential, passion and skills.

Saladin rose through the ranks at the College of Health Professions. From the time she accepted that position as a visiting instructor in the physical therapy program, she blazed a bold trail that led her to the deanship, a position she held for five years. In that time, she returned the favor, mentoring many faculty members and both promoting from within and recruiting strong educators and researchers, taking the college to a place of robust national prominence.

Saladin's love for her college was unmistakable, and her reputation as a strong leader, negotiator, mentor and intraprofessional collaborator did not go unnoticed.

When former provost Mark Sothmann, Ph.D., stepped down in June 2016, Saladin was quickly appointed interim. After a national search, she was named provost in mid-April.

Once the MUSC Board of Trustees confirmed her appointment, President David Cole, M.D., FACS, was elated to share the news with the MUSC community.

"Dr. Saladin will serve as the chief academic officer for MUSC. After engagement with a talented pool of candidates from notable institutions across the country, Lisa emerged as the top candidate to assume the provost's responsibilities. She possesses a clear

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EMPLOYEE CORNER

Obituaries

□ **Doug Nuckles**, DDS, professor and former assistant dean for clinical affairs in the College of Dental Medicine, died March 19 in Gig Harbor, Washington. He was 86. Nuckles had worked for 22 years at MUSC as a pre-clinical instructor in operative dentistry and later as assistant dean for clinical affairs in the mid-1980s.

“He was a dedicated teacher, well organized, demanding but fair,” said Tariq Javed, DMD, professor and associate dean for academic and student affairs in the college. According to Javed, Nuckles was instrumental in modernizing the college’s

dental clinics and helped update and outfit clinical space supporting the dental implant program in the Department of Periodontics.



Govan

□ **Andrea Denise Govan**, a program assistant with the ventricular assist device program with MUSC Cardiology, died May 1. She was 47. She worked for more than nine years in various areas of MUSC Health and is remembered for being a hard worker, dedicated, compassionate and spiritual. Coworker Dawn Heyward Pasquarello, DNP, remembers Andrea’s laugh, bright smile and “can-do” attitude. Friend and MUSC Mailroom coworker Emuel Green remembers her kindness. “She was very likeable and easy to get along with,” he said. Andrea is survived by her husband, David J. Govan and other family.

Lisa Saladin, Ph.D., P.T., executive vice president and provost, requests the honor of your presence at the inaugural MUSC James W. Colbert Lecutreship and 2017 Faculty Convocation to celebrate the new academic year and honor faculty award recipients.

Keynote address from

B.J. Miller, M.D., assistant clinical professor, University of California, San Francisco.

The event will take place at 4 p.m., Tuesday, Aug. 22, Drug Discovery Building, Room 110. A reception will follow in the Drug Discovery Building Lobby.

Office of the PRESIDENT

Dear MUSC Community,

As the 122nd regular session of the South Carolina General Assembly concludes, we want to share the MUSC higher education and health care highlights for the upcoming fiscal year. The state continues to support our institution’s commitment to excellence in health care education, research and delivery. Governmental Affairs Director Mark Sweatman, along with Katherine Haltiwanger and Quenton Tompkins, have been tirelessly promoting MUSC and its mission.

Earlier this month, the Fiscal Year 2017-18 General Appropriations Act was ratified and its directives will go into effect July 1. The legislation includes significant financial support for MUSC, outlined as follows:

- \$19 million to support MUSC’s ongoing statewide partnership in the South Carolina Telehealth Alliance;
- \$3 million in recurring funds for an adult burn unit;
- \$1.5 million from the South Carolina Department of Health and Human Services (SCDHHS) for a joint collaboration among MUSC, SCDHHS and the South Carolina Department of Alcohol and Other Drug Abuse Services: together we plan to establish a pilot program to expand medication-assisted treatment for prescription opioid dependency and addiction;
- \$1 million to further develop statewide teaching partnerships;
- \$1 million will be contracted to MUSC from SCDHHS to continue working on Statewide Health Innovation;
- \$750,000 in recurring funds for Statewide Health Innovation, which will be targeted specifically for mental and behavioral health, children’s health, cancer, and chronic diseases. With these four areas of health care in mind, we will focus on the most vulnerable communities and partner with other universities, hospitals, and clinics to develop ways to deliver new methods, products, technologies, and medications; and
- 99 new FTEs (full-time equivalent positions) were secured for the university, which will translate into essential personnel for our academic units.

These very strong legislative results demonstrate that there is clear understanding of and support for our mission. State legislators continue to believe in the work you do each day. Thank you for your dedication to education, research and patient care. MUSC would not be where we are today without you. I look forward to working with you in the coming fiscal year as we continue to promote our vision, “Leading Health Innovation for the Lives We Touch.”

Yours in service,

David J. Cole, M.D., FACS
President



Cole

THE CATALYST

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July 19 dedication planned for new meditation labyrinth

The new Imagine MUSC 2020 Meditation Labyrinth will be dedicated on July 19 at 9:30 a.m. at the MUSC Fitness Park, which is located inside the brick wall on the corner of Bee and President streets. This project was built through a collaboration between the Office of Health Promotion and MUSC Grounds Department and funded through a stipend received by OHP from the South Carolina Hospital Association's Working Well Program. In addition, Holly Bendz, labyrinth designer, builder and workshop facilitator, was contracted to assist with the project.

All are welcome to attend this ceremony and walk the labyrinth.

ABOUT THE LABYRINTH

The OHP developed the meditation labyrinth to give individuals a place to contemplate, relax and find peace. It complements the Urban Farm and Fitness Park, along with other elements of the Greenberg Greenway, as an example of MUSC's commitment to providing healthy options and innovative programs that contribute to a higher quality of life, healthier environment and overall wellness for all who visit the campus. Collectively, these projects are helping to build a healthier community, as part of the Imagine MUSC 2020 initiative.

Labyrinths are ancient symbols that have been used by various cultures and religions around the world for more than 4,000 years, with many of their patterns based on spirals and circles mirrored in nature. On some occasions, people visit them to contemplate questions or to simply relax; others come during times of grief or loss seeking solace.

Today, labyrinths are used worldwide as a way to gain insight, encouraging meditation, self-reflection, and stress reduction and to discover innovation and celebration. Unlike a maze, it has a single path in full view that leads to the center and back out the same way. This powerful process of moving in and out provides an opportunity for the traveler to focus internally, integrating the body



Project designer and participants Holly Bendz, from left, Carlos Cruz, Dr. Susan Johnson and Nate Dubosh pose in front of the MUSC Meditation Labyrinth.

photo by Anne Thompson

with the mind and the mind with the spirit. Labyrinths are open to all people as a non-denominational, cross-cultural blueprint for well-being.

GUIDANCE FOR WALKING A LABYRINTH

Reflect: Prior to entering the labyrinth, reflect on what you are grateful for and any questions or problems about which you'd like to receive guidance.

Release: As you walk the path to the center, let go of any unwanted thoughts, feelings, attitudes or the like that no longer serve you.

Receive: Once in the center, meditate, pray, be silent as you receive what there is for you.

Return: When ready, follow the path out of the labyrinth. You may feel a sense of renewal.

MUSC Health & Well-Being

By Susan L. Johnson, Ph.D., MUSC Office of Health Promotion



Remember: Once out of the labyrinth, take a moment to remember your experience. All of the walk benefits may not unfold to you immediately. Continue to be mindful as your answers may come with time.

There is no right or wrong way to walk the labyrinth; honor your own pace. Please respect the experience of others as they navigate the labyrinth.

For information on the Meditation Labyrinth, the Greenberg Greenway and other programs that promote well-being, visit www.musc.edu/ohp or contact Dr. Susan Johnson at johnsusa@musc.edu or 843-792-1245.

Public invited to comment

MUSC Department of Public Safety is scheduled for an on-site assessment as part of a program to achieve accreditation by verifying it meets professional standards.

Administered by the Commission on Accreditation for Law Enforcement Agencies, Inc. (CALEA), the program requires agencies to comply with standards in four basic areas — policy and procedures, administration, operations and support services.

As part of the process, agency employees and the community are invited to offer comments at a public information session on Tuesday, July 25 from around 5 p.m. The session will take place at Harborview Office Tower, 19 Hagood Avenue, Room 803. Agency employees and the public are also invited to offer comments by calling 843-792-3014 on Tuesday, July 25 between the hours of 1 to 3 p.m. Comments will be taken by the Assessment Team. Telephone comments, as well as appearances at the public information session, are limited to 10 minutes and must address the agency's ability to comply with CALEA's standards. A copy of the standards is available at the Public Safety Office, 101 Doughty Street. Contact Debbie Underwood, 792-1986. Anyone wishing to submit written comments about MUSC Public Safety's ability to comply with the standards for accreditation may send them to the Commission on Accreditation for Law Enforcement, Inc. (CALEA), 13575 Heathcote Blvd., Suite 320, Gainesville, Virginia, 20155 or email calea@calea.org

Researcher dedicated to cure for neurodegenerative diseases

By J. RYNE DANIELSON

daniejer@musc.edu

Few had heard of amyotrophic lateral sclerosis when Yankees first baseman Lou Gehrig caught his bad break in 1939.

"Today I consider myself the luckiest man on the face of the earth," he told a sold-out Yankee Stadium in July of that year, two months after he benched himself due to the early symptoms of ALS. "I might have been given a bad break, but I've got an awful lot to live for."

Less than two years after quitting baseball, he succumbed to the disease that would go on to bear his name.

ALS — or as it's often called, Lou Gehrig's disease — is a neurodegenerative disease affecting voluntary muscle control. As motor neurons in the brain die, muscles stiffen and eventually atrophy, resulting in difficulty walking, speaking, eating and breathing. The prognosis is almost invariably paralysis and death within a few years of the first symptoms. ALS has no cure, and its causes are a matter of conjecture among scientists.

Mariana Pehar, Ph.D., is working to change that. Since coming to MUSC in 2012, she has dedicated herself to the study of neurodegenerative diseases like Alzheimer's, Parkinson's and ALS. Originally from Montevideo, Uruguay, she has been fascinated by the brain since she was young.

That fascination could someday lead to a cure for ALS. In studying the role of oxidative stress in the brain, she thinks she's identified an interaction between certain signaling proteins that may be killing off motor neurons in ALS patients.

"We are trying to understand the mechanism by which motor neurons are dying," Pehar said. "We have found that a protein called nerve growth factor (NGF), which regulates the growth and survival of neurons, is susceptible to post-translational modifications that can cause cell death rather than promote growth. In addition, we've identified two receptors, called RAGE and p75NTR, that interact to induce the cell death initiated by oxidized NGF."

Essentially, Pehar thinks NGF is being hijacked by chemically reactive molecules like free radicals and reactive sugar intermediates. These molecules are byproducts of normal metabolism and the body has a defense system to cope with their production and prevent damage. In pathological conditions, however this defense system is overwhelmed by the increased production of toxic molecules. Free radicals are linked to a host of diseases, including chronic inflammation, arthritis, diabetes and cancer. If Pehar is right, they may be behind neurodegenerative diseases like ALS and Alzheimer's as well.

A \$1.64 million grant from the National Institute of

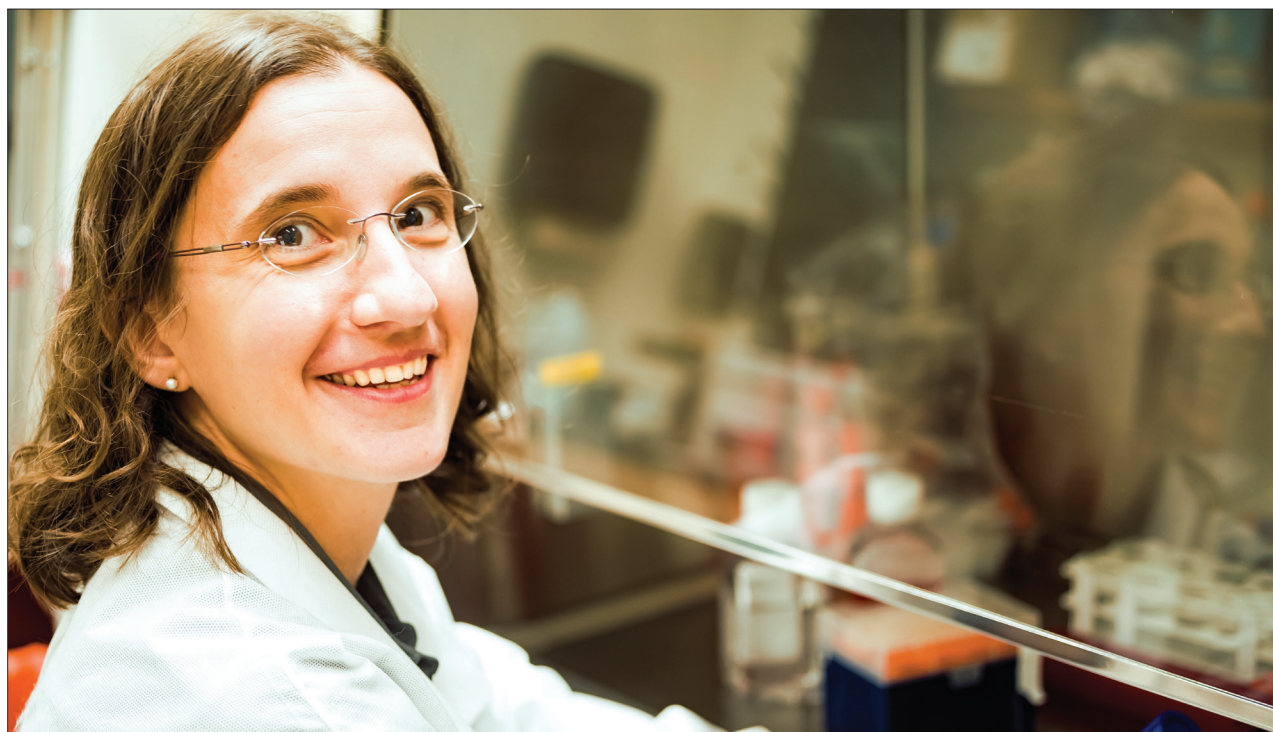


Photo by J. Ryne Danielson

Dr. Mariana Pehar has worked at MUSC since 2012 studying Alzheimer's, Parkinson's, ALS and other neurodegenerative diseases.

Neurological Disorders and Stroke, part of the National Institutes of Health, will help her test that hypothesis and could eventually lead to a cure for this rare but debilitating disease.

Pehar said identifying the interaction between RAGE and p75NTR is particularly important because they may be good therapeutic targets. "This is particularly interesting," she said. "Cells communicate by secreting proteins such as NGF. But, for the process to work, the target cell must contain another protein called a receptor to recognize the incoming signal."

Once a receptor recognizes a secreted protein, it triggers a signal cascade inside the target cell. Sometimes the signal causes the cell to grow or change in beneficial ways. Sometimes, it causes the cell to die.

That isn't always a bad thing. The body needs a way to get rid of cells that are damaged beyond repair.

"An inflammatory response may be good at the beginning, if it's well controlled," Pehar explained. "Having a neuron that is not working properly — that's not good. So, you want your body to get rid of it. But, when the process gets out of control, it can form a toxic feedback loop that becomes detrimental to healthy cells, too."

For those working to cure ALS and other neurodegenerative diseases, the good thing about this complexity is that they might only have to target one piece of the process to short circuit the whole thing. None of these signaling proteins or receptors has the

ability to induce a signaling cascade alone. It's the interactions between them that trigger a response, good or bad, inside a cell.

"We've known about the potential involvement of p75NTR in ALS for many years," Pehar said. "Other studies have experimented with eliminating p75NTR with minimal effect. The problem is that p75NTR interacts with many receptors and is important to the survival of neurons. Not having p75NTR is not good, and specifically preventing the death signaling without affecting its positive interactions is very complicated."

As a result, the study of p75NTR's involvement with ALS had fallen by the wayside. However, the discovery of RAGE and its interaction with p75NTR challenges the existing paradigm of ALS research and presents researchers with new therapeutic opportunities.

Pehar and her team are taking a three-pronged approach.

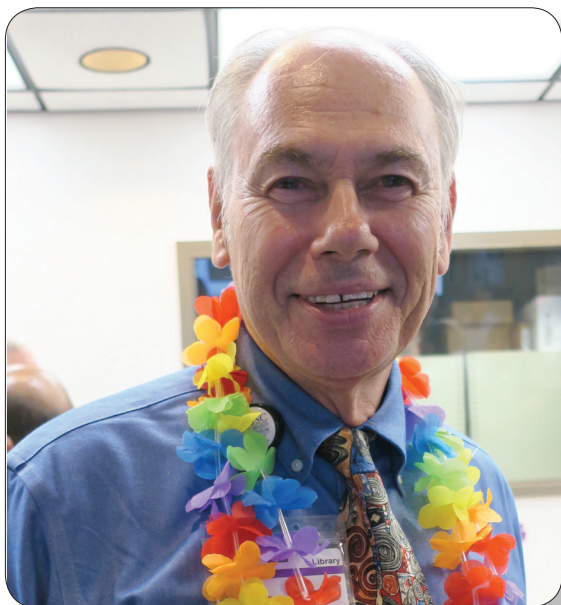
"If we can prevent the interaction between p75NTR and RAGE, we think it might have a positive outcome," she said. "We're also trying to target the oxidized NGF and develop ways to remove p75NTR or RAGE from target cells using modified viruses called vectors."

These viral vectors essentially act as tiny fighter jets, carrying precise genetic weapons to their targets while preventing collateral damage.

Pehar and her team are also developing a proof

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MEET BOB



Bob Poyer

Department; How long at MUSC
MUSC Libraries (retired on June 30); 42 years

Family

Wife, Donna; daughter, Meaghan; son, Jacky; grandsons, Jacob and Eli; mom, Kitty; siblings, Danny, Moe and Eileen

Hometown

North Babylon, Long Island, NY

Favorite summer memory


My father getting us up in the middle of the night to drive to my paternal grandparents' house in upstate New York — he hated driving through New York City traffic.

Something you've done once but will never do again

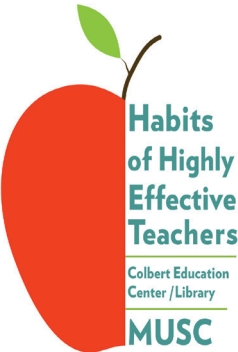
Ride on a motorcycle as a passenger

Favorite quote

When asked how I am or how I'm doing I say: "It's just another day in paradise at "MUSC; MUSC Health Stadium; Folly Beach; North Babylon, NY; or wherever I might be."



Appletree *presents*



Habits of Highly Effective Teachers
Colbert Education Center / Library
MUSC

July 18
Use of Technology

- Flipped classroom with Panopto
- Instructional design in Moodle
- Making the best of Powerpoint
- Videoconferencing with WebEx

Education Center/Library Rm 405
12:00-1:00PM

July 25
Communication and Feedback

- Creating a space for open communication
- Giving feedback
- Receiving feedback
- Five questions of effective teaching at MUSC

Education Center/Library Rm 405
12:00-1:00PM

August 1
11:00AM-12:00PM
Four Treacherous Teaching Traps and How to Avoid Them

12:00-1:00PM
But I Gotta Get an A!: How to Build a Tougher Student

Mike Bridges and Marie Norman, authors of *How Learning Works: Seven Research-Based Principles for Smart Teaching*

Bioengineering Rm 112

July 11
Course Development

- Developing your syllabus
- Writing learning objectives
- Creating formative/summative evaluations
- Finding a place for educational theory

Education Center/Library Rm 405
12:00-1:00PM

July 12
Become a Better Speaker and Perk up Your Presentations

Lisa Berry, Former Regional Director of Toastmasters


Bioengineering Rm 112
12:00-1:00PM

August 8
Addressing Disruptive and Dangerous Learner Behavior


Scott Lewis, Co-founder of National Behavioral Intervention Team Association

Bioengineering Rm 110
12:00-1:00PM

In support of MUSC's Imagine 2020 Goal to Foster Innovation in Education and Learning.



science café



Unleashing the Power of Immunotherapy

Speakers On Our Immunology Dream Team:

Zihai Li, M.D., Ph.D.
Jeff Hammerbacher, AB
Chrystal Paulos, Ph.D.
Mark Rubinstein, Ph.D.
John Wrangle, M.D.

Science for the rest of us

MUSC's Science Café is a series of presentations offering entertaining talks on scientific subjects in a fun, non-technical way in a pleasant social environment. To learn more, contact Tara Abbott at 843-792-2926.

From engineered killer cells to immune checkpoint blockers, immunotherapy has entered into the mainstream oncology and has revolutionized cancer care. Cancers that were declared incurable and terminal just a few years ago now can be treated with immunotherapy. Is this a hype or reality? Can immunotherapy benefit every cancer patient? Is the war against cancer finally winnable? What keeps the Hollings Cancer Center immunologists awake at night? Come and join us as we share our stories and dreams in re-writing this chapter of cancer medicine.

July 18, 2017, 5:30 p.m.
Charleston Beer Works (upstairs)
480 King Street, Charleston, SC 29403

MUSC SCIENCE CAFÉ

PROVOST *Continued from Page One*

Photo by Anne Thompson

Interim Provost Dr. Lisa Saladin joined President David Cole and other faculty at the 2016 MUSC Convocation.

understanding of the complexity of her new role since she has served as the MUSC interim provost since July 2016. She will be the second female provost in MUSC history.”

As Saladin says grace over the bounty that’s been placed in front of her, she realizes it has been an interesting journey to Colcock Hall. Leadership suits her, but it was something she hadn’t sought — never was the deanship of CHP on her radar, let alone provost.

She shakes her head and laughs when she says she had to go back and apologize to the faculty of CHP. “I swore in blood I would not go for provost.” Fortunately, though, everyone has been incredibly supportive, knowing she’s the best person for the job.

What might look to others as strategic moves on the chess board, she characterizes more as opportunities pursued. Previously, she said, every other role — from clinical physical therapist to chairwoman of Health Professions — all came to fruition because she was expanding her personal skills set or meeting an unmet need. But as she embraced each new role, she thought, “I really enjoy this, too,” which served as a springboard to a cornucopia of new possibilities.

“Every new opportunity has literally been an opportunity I walked into. It’s interesting. You learn a different perspective or a new role. You are exposed to things. You learn that you like them. Then you learn to do them

well. And people ask you to do more of them.”

It didn’t take long for opportunity to begin to knock — and her to answer. But opening the door came with strings.

“A new opportunity has to resonate — there has to be a spark there that answers the question, ‘Why would I want to expose myself to this new role?’ There has to be something intriguing, growth potential, something that stimulates me to say, ‘I’m just not doing this because.’ It has to have a purpose.”

She knew early on she wanted to connect with people and explored various areas of medicine that she knew would give her purpose. The thought of building long-term relationships with patients excited her, and she arrived at physical therapy. She became a neuro-therapist and worked with some of the most challenging cases. There she could celebrate even the smallest accomplishments. Her rewards were many.

“For me, physical therapy is about sharing my patients’ accomplishments. My primary patients had neurological conditions — Parkinson’s, stroke, brain injuries — they’d lost something, and they needed help. As you help them achieve their goals, there’s an enormous satisfaction. You cry with them when they take their first steps. You work with their families. You get to know them. You know their goals. It was incredibly gratifying to see them achieve those goals.”



Photo provided

The Saladins, center, at the College of Health Professions’ 50th Anniversary Gala with students Dr. Cynthia Li, from left, Janina Wilmskotter and Kelly Anderson.

She found that same level of satisfaction teaching physical therapy students, which she continued to do even while she was dean of the college.

“Carry forward that sense of helping someone accomplish their goals to students — it’s the same thing. My satisfaction was seeing them grow. I taught neuroscience — a really tough course. The students who struggled, I would spend a lot of time with, to help them see how to learn better. And they’d get it and go from a failing grade to doing well in my course. It’s the same sense of satisfaction — seeing someone accomplish their goals.”

And as provost? Will she still experience that same sense of satisfaction? She says yes. She still gets to connect with people every day — the reason she went into health care in the first place.

“In this job, it’s a broadening scope. I still get to connect with people, and I get to go deeper into certain areas and understand how we connect. How do I support them? For me, it’s understanding how my role can facilitate their work and how I can get the resources necessary for the people who now report to me and rely on me to do their work. It’s challenging. It’s problem-solving every day.”

That’s what she loves about the job: problem solving. And with a formidable lineup of senior leaders reporting to her, among them the vice president for research, associate provost, deans of the six colleges and directors of Hollings



Dr. Saladin presents College of Pharmacy’s Dr. Clint Blankenship with the Teaching Excellence award in 2016.

Cancer Center, South Carolina Area Health Education Consortium (AHEC) and Library Services, she will likely get her wish.

“I love to meet with people, hear them, and help them figure out how to solve their problems. It’s sort of like physical therapy. You listen to what they want to do. You listen to their goals. I don’t do their work. I facilitate them. The role of the provost — it’s strategic, and yes, it’s providing some direction, but it’s also in large part, identifying where people or units or colleges or departments want to go and facilitating their progress. It’s working with them as their partner to get them where they want to go.”

CHANGES AHEAD

As provost, Saladin will be responsible for institutional vision setting, strategic planning and oversight and investment for education and biomedical research.

No small undertaking. Especially considering she assumed the position at a particularly challenging time in education, research and health care. Right off the bat she’s responsible for recruiting the right people to fill a handful of senior positions.

She would not have accepted the position, she said, if she didn’t believe she could make a substantive impact. And as she scans the horizon in front of her, she approaches the new position cautiously, yet optimistically.

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PROVOST *Continued from Page Six*

“These are challenging times — and there are challenging times ahead. This is not going to be easy. Health care reform is changing. The finance of health care is changing. The finance of education and state level of funding for public education have changed dramatically. We have fiscal challenges,” she said. “We have building challenges. We have resource challenges. We are looking at some pretty critical hires. Without the right leaders in place, we’re not going to be as successful in managing the change ahead. We’ve got to create the right team and empower them.”

And, MUSC, she said, has to constantly be asking what’s new in education.

“We can’t continue to do the same old things. It’s a competitive market. We’re competing for students. We’re competing for faculty.”

She said part of the struggle is education has to become more of a business. And that’s the hard part — balancing the business side and the people side.

“We need to come up with creative ways of generating revenue. Our expenses are going to continue to increase. We don’t want to be status quo and not be able to pay our staff well. In order to do that, we have to think of creative ways — new ways to generate revenue, and we have to create mechanisms to be more efficient in how we spend money. So efficiencies, cost efficiencies, we have to be exploring that,” she said, her

face reflecting the weight on her shoulders. “Not to do that would be to face the future unprepared.”

Saladin is central to these conversations. She enjoys thinking outside the box and exploring creative ideas. For instance, in addition to the new MUSC-Clemson partnership that was recently announced, innovative models such as a possible three-year medical school curriculum are being discussed. While it wouldn’t increase revenues, it would decrease student debt — a reality that plagues families and has recently drawn considerable news coverage and political sound bites.

“Not always do our ideas jibe on the balance sheet,” she explained. “We’re talking about generating revenues and reducing expenditures; a three-year medical school is probably going to reduce our revenues, but in the end, it’s better for the students, because we can’t keep crippling students with the massive amount of student debt,” she said pragmatically.

So the team brainstorms opportunities that might include more distance education or innovative programs like a partnership between oral health and engineering students.

Recently, Saladin had her first retreat and brought in all the deans. She also invited MUSC Health CEO Patrick Cawley, M.D.

“We asked Pat what the health care workforce needs in the hospital are and what positions he might need

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TELEHEALTH *Continued from Page One*

specialty care is delivered to patients at virtually any location, even their homes, using MUSC's mobile health technologies.

Thanks to funding by the South Carolina Legislature, MUSC's telemedicine program has grown by leaps and bounds, literally putting South Carolina at the forefront of a nationwide trend. Until recently, parts of the program have been housed at various locations across campus, but today, through additional funding from the Legislature, Duke Endowment and private donors, the Telehealth Center now has dedicated space in the main hospital, consolidating its many components, said David McSwain, M.D., a pediatric critical care intensivist and medical director for Telehealth Optimization.

The new Telehealth Center held an open house on June 30 and nearly 70 guests and employees attended the special event, touring the facility and watching live telehealth demonstrations.

McSwain explained the major difference the dedicated center makes for its programs.

"Before now, we had telehealth staff spread out at Rutledge Avenue, Harborview Tower and Institute of Psychiatry, but we were not based where most of our providers were actually providing care. The great thing about the new center is that it centralizes our telehealth activities so we can provide the training, education and support that is needed for our own providers to efficiently practice telehealth. To have everyone here, right in the middle of the action, so to speak, is huge," he said.

The center is going to be multi-functional in its use, said Adrian Grimes, manager of telehealth external affairs. The learning commons and training center are going to function not only to provide education about telehealth, she said, but also training on the provision of telehealth and real-time support for providers when they are providing telehealth services.

One of McSwain's responsibilities is to direct the use of the learning commons and training center. Ragan Dubose-Morris, telehealth education manager,

will be working with McSwain to deliver innovative and collaborative telehealth training to MUSC providers. Tasia Walsh will continue to assist the team with EPIC integrations.

The Telehealth Center is also the new home for the Admit Transfer Center, which plays a vital role in the efficient delivery of telehealth care.

In addition, the center continues to branch out in many exciting directions and has big plans for growth.

"We are always expanding our services," McSwain said. "There are several services that we are excited about developing. We've learned a lot in the last few years about what works and what doesn't work and about the factors that contribute to a successful telehealth program. We're really looking forward to building on those experiences, as we move forward with this new center."

For one, they are in the early stages of development for a program for medically complex children, collaborating across multiple specialties in the Department of Pediatrics to integrate home telehealth services into a program that focuses on improving the care of children on home mechanical ventilation. The project aims to reduce these children's length of stay in the hospital, improve their care at home, prevent unnecessary emergency room visits and shorten their time on ventilators.

That program will build on the existing pediatric critical care teleconsultation program, which provides 24/7 availability of pediatric critical care intensivists for consultation to rural emergency departments in South Carolina.

McSwain was one of the presenters at the open house, demonstrating how he can evaluate a sick child remotely and efficiently. The telemedicine program uses cutting-edge equipment to place MUSC's pediatric specialists virtually at the bedside for children who come into the community emergency department but end up requiring emergent subspecialty consultation.

"We can call into the telemedicine cart within minutes and examine a patient with a high-definition camera that we control from our own location. The stethoscope allows us to listen to heart and lung sounds in real time. It's like being right there in the patient's room



photo by Sarah Pack

Dr. James McElligott, far right, medical director for telehealth at MUSC, also spoke at the event.

at the moment you're most needed, and that is amazing."

Guests at the open house were amazed at how precise the evaluation was and many were visibly moved by the patient McSwain was evaluating on the huge screen.

Guests were also treated to demonstrations of the telestroke program and school-based telehealth and received a tour of the Tele-ICU control center, which provides 24/7 remote monitoring of patients located in community hospital ICUs across the state.

Another program under development is Continuous Virtual Monitoring, a remote patient monitoring system that's designed to provide real-time video monitoring and rapid intervention for patients admitted to MUSC medical units or the Institute of Psychiatry with fall risks or other safety issues. These patients currently require a personal sitter in the room with them for their

own safety. The new program will allow virtual monitoring technicians to continuously monitor 10 or more patients at a time with the assistance of virtual rails and alerts.

McSwain is also excited about a new program for skilled nursing facilities, which aims to decrease emergency room visits and improve nighttime coverage for nursing home patients, and the growth of home video visits.

"One of the most exciting areas to me is the potential of home telehealth. When you look at the health care landscape and the way telehealth could impact it – the greatest potential is in patients who have chronic illnesses and are heavy utilizers of health care services. To be able to reach into their homes and see them where they live could potentially have a huge impact on their lives and help them in the management of their condition, reduce their utilization of emergency room services, and really impact how they manage their disease. That is a really exciting area we're working on."

In terms of the success of the telehealth program and potential of the new center itself, McSwain is optimistic.

"I think the program certainly has grown at a phenomenal pace, and we have the state Legislature to thank for that. They've made an amazing investment in telehealth in South Carolina. As a result, we've been able to grow telehealth to the point where South Carolina really is on the tip of everyone's tongue nationally. We've taken an innovative approach to health care delivery that is being noticed across the country. But the real goal of the program is to save lives here in our state."

MUSC Health departments celebrate house staff, awards

Anesthesia & Perioperative Medicine
CA 1 Teacher of the Year – David Gutman, M.D.; CA 2/3 Teacher of the Year – James Abernathy, M.D.

Emergency Medicine – Pediatric
Losek Legacy Award Recipients – Matthew Cully, D.O.; Michelle Greene, D.O.; Christopher Stem, M.D.; EM Recipient – Elizabeth Barton, M.D.;

Internal Medicine
Resident Research Award – Sara Matar; Intern of the Year – Maggie Thomas; Resident of the Year – Derek Low; Fellow of the Year – Nick Fox; Outpatient Resident of the Year – Lyndsay Mueller; Inpatient Resident of the Year – Kyle Armstrong; Attending of the Year – Marc Heincelman and Andrew Schreiner; Ambulatory Teacher of the Year (Outpatient Attending) – Karen Abernathy; Division of the Year – Pulmonary

Infectious Diseases
Teacher of the Year – M. Sean Boger, M.D., PharmD; Chief Fellow – Richard Kilgore Rodriguez, M.D.

Neurology
Resident Excellence in Care Award – Ryan Barmore M.D.; Resident Teacher of the Year Award – Sami Alkasab, M.D.; Highest In Service Exam – Alain Lekoubou Looti, M.D.; Research Presentation by a Resident – Zeke Gleichgerricht, M.D.; Research Presentation by a Fellow – Daniel Abenroth, M.D.; Faculty of the Year – Sarah Schmitt, M.D.

Neurosurgery
Neurosurgical Resident Teacher of the Year – Ryan Kellogg, M.D.; Best Neurosurgical Research Day Presentation – Stephen Lowe, M.D. and Jan Vargas Machaj, M.D.; Neurosurgical Resident of the Year – Stephen Lowe, M.D.; Faculty Award for Excellence in Neurosurgical Resident Education – Ramin Eskandari, M.D.

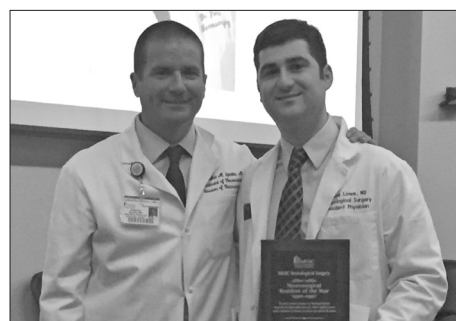
Ophthalmology
Pediatric Fellows – Maria Cecilia Artigas, M.D. and Emily Shortridge, D.O.; Pierre Jenkins Gaultier Teacher of the Year – George N. Magrath, M.D.; William W. Vallaton Academic Excellence Award – Kristin A. Neatrour, M.D.; Helma Research Award – Kenzo J.P. Koike, M.D.; Richard Saunders Award for Surgical Mentoring – Jake C. McMillin, M.D.; Program Director's Award – Kenzo J.P. Koike, M.D.; Tech of the Year – Traci Davis, C.O.T.; Glaucoma Fellow – Leah Lynn Kammerdiener, M.D.; PGY4 Ophthalmology Residents – Ashley M. Brundrett, M.D., Kenzo J.P. Koike, M.D. (Chief), Amanda L. Marzolf, M.D., and Anne M. Schroeder, M.D.

Pathology & Laboratory Medicine
House Staff Award for Anatomic Pathology Faculty – Laura Spruill, M.D, PhD.; House Staff Award for Clinical Pathology Faculty – Angie Duong, M.D.; Chief Resident 2016–2017 – *Ashley Cross, M.D.; Chief Resident 2016–2017 – *Mike Stump, M.D. (*third consecutive year to win this award); Committees: VP of MUSC House Staff Council – Rachel Jester, M.D.; Resident House Staff Council Representative – Kendall Brewer, M.D.; Peer Review Committee – David LeBel, M.D.; Apple Tree Steering Committee; Resident Representative for ASCP – Tiffany Baker, M.D., PhD.; Section editor for the Archives of Pathology and Laboratory Medicine – Dan Skipper, D.O.

Pediatrics
The Atlas Award – Adebawale Odulana, M.D.; Around-the-Clock Aristotle – Dave Mills, M.D.; Nine-to-Five Socrates – James Roberts, M.D.; The Bob Vila Award – Melissa Evans, M.D.; The Sunrise Swami – Scott Russell, M.D.; The PM Pedagogue – Lara Wine Lee, M.D.; Rookie of the Year – Whitney Marvin, M.D.; Glass Stand-Up Awards: Fellow of the Year – Emma Carter, M.D.; Intern of the Year – Tina Zhang, M.D. and Zaki Yazdi, M.D.; Outstanding



Members of MUSC's Department of Internal Medicine house staff gathered to accept annual awards. Awardees include Drs. Maggie Thomas, Derek Low, Nick Fox, Mar Heincelman, Andrew Schreiner, Karen Abernathy, Lyndsay Muller, Kyle Armstrong and Sara Matar. Below photo: Department of Neurosurgery's Dr. Stephen Lowe, right, is presented with the Neurosurgical Resident of the Year Award by Dr. Alejandro Spiotta.



Senior Resident – Sarah Yale, M.D.; Most Supportive Staff Member – Sheila Jones; Intern Humanism Award – Tina Zhang, M.D.; Clerkship award: Resident as Teacher Student Award – Morgan Khawaja, M.D.

Psychology
Psychiatry Golden Apple Award – Paula Everman, M.D.; Chris Fields, M.D.; Cat Miller, M.D.; Mary V. Ladd, M.D.; Tyson Lippe, M.D.; Lee Lewis, M.D.; Thomas Lewis, M.D.; Psychology Internship Program Clinical Excellence Award – Cynthia Lancaster; Laura Griffin Award Internship Award – Chelsey Hartley; Psychology Internship Program John C. Roitzsch Memorial Scientist-Practitioner Award – Christopher Sege; Psychology Internship Program Robert Magwood, Jr. Outstanding Service to Crime Victims Award – Rosaura Orenge Aguayo, Ph.D.; Psychology Internship Program Best Clinical Supervisor – Layne Goble,

Ph.D.; Psychology Internship Program Best Research Preceptor – Dan Gros, Ph.D.; Psychology Internship Program Award for Outstanding Contributions to Training & Professional Development – Elizabeth Santa Ana, Ph.D.

Surgery
Paul H. O'Brien, M.D. Resident Teaching Award – Virgilio V. George, M.D.; Max S. Rittenbury, M.D. Intern of the Year Award – Anna Matrachisia, M.D.; Max S. Rittenbury, M.D. Intern of the Year Award – James T. Pastnak, M.D.; Student Award for Excellence in Resident Teaching – Gabriel R. Chedister, M.D.; Surgical Training Awareness & Residency (STAR) Medical Student Faculty Teaching Award – David M. Countryman, M.D.; David J. Cole, M.D. Professionalism Award – Jane C. Kilkenny, M.D.; The Curtis P. Artz MUSC Surgical Society Award for Excellence – Nicholas Ward, M.D.; Combined Basic Science Awards: Top Senior Resident PGY3–5 – Ben Calder; PGY4 – Top Junior Resident PGY2: Allen Bui, PGY2; Top Categorical Intern – Catherine Chung, Categorical; Top Prelim Intern – Zilan Lin, M.D., Preliminary; Dabney R. Yarbrough III, M.D. Research Award – Kunal J. Patel, M.D.

PROVOST *Continued from Page Seven*

in the future. We discussed what we can do to help him provide that. Whether it's certificate programs or new degree programs — all of it will help generate new revenues. Again, it must be modeled carefully, because we can't just create a new program without understanding the expenditures that it's going to create or stress to the infrastructure."

It's that type of big picture thinking that she enjoys. But she understands leadership comes with its share of stress.

"OK, here's a new program — what are all the dominoes? Is it collaborative? Interprofessional? Where are we going to invest that will have the maximum gain and least amount of expenditures? When we find solutions — it doesn't get any better. But the flip side is when there are challenges, and we can't find solutions; people's lives are affected. Those are the most difficult decisions that leaders have to face. That keeps me up at night."

Worst-case scenarios notwithstanding, she can't emphasize enough how dedicated the leadership team is.

"I love this leadership team. We function like a well-oiled machine. We

respect each other. We can push at each other. I can be completely authentic, have an opposite opinion, and be heard. We might not always agree, but we listen to each other. That is a key reason why I accepted this position. The senior team works really well together."

She believes everyone on the senior team has the best interest of MUSC at heart and wants the institution to grow and thrive. After nearly a year in the job as interim, she's already experienced the realities of the job.

"I work extremely well with Dave Cole, and I'm excited about the conversations I'm having with Pat Cawley. We are sharing what the clinical side is doing and what the academic side is doing and discussing how we integrate more. How we synergize more. I love what Dave is saying — and it's not just words — about integration and synergies and collaboration and getting out of silos. That, to me, that's exciting. There's been too much 'I'm in it for myself or for this unit.' This unit will survive. We recognize we will survive, grow and thrive if we do it together. For this leadership team, it's about the success of the entire enterprise."

PERSONAL INVESTMENT

It is said that every day offers a new opportunity to give richly of one's time, talents and treasures, and Saladin embodies that philosophy. Not only has she devoted her career to MUSC, but, in many ways, her life. To her, MUSC is far more than a career she has spent nearly three decades building — it is a family she has invested in, teaching students, mentoring faculty, treating patients, nurturing friendships, giving back.

She and Mike, a professor in the Department of Health Science and Research, have been very generous donors, establishing a scholarship that provides two awards per year: one to a Ph.D. student and the other to a physical therapy student. The Saladins, both Ph.D.s, named the fund, as well as the student life center in the College of Health Professions, not for themselves but in honor of their beloved 12th grade English teacher, Salvatore Scaletta.

They've also made planned gifts that will establish the scholarship as a permanent endowment. They've put

careful thought into how to advance science and care at MUSC.

That commitment comes from more than just a devotion to the institution. "MUSC is truly my family. I cut my professional teeth here. This was my first full-time faculty position. The people at the college are my family. We donated money to this university because it has given so much to us. This is my family. So for me, everything I do connects back to making this a great place."

Her door is always open, and the wall of her office in the president's suite is adorned with personal photos of time spent doing what she loves — hiking and backpacking are among her and Mike's favorite pastimes. The focal point is a breathtaking photo of Patagonia's jagged peaks and magnificent glaciers rising dramatically above Chile and Argentina. She snapped it while they were on a hike.

The photo reflects an ascent fraught with risks and challenges as well as victory and fulfillment — experiences that prepare a person for uncharted territory that lies ahead.

STUDY *Continued from Page Four*

of principle using animal models to observe how the absence of RAGE receptors might affect neurodegenerative processes. She hopes removing RAGE won't have the same detrimental effects as removing p75NTR en masse.

"Over the next three to four years, we'll continue trying to get a better understanding through animal models," Pehar said. "After that, if we see a beneficial effect, its translation to the clinic may still lie many years ahead." Nonetheless, Pehar said she is encouraged by these new discoveries and the advances that may be made over the next decade.

Six MUSC peds programs rank in USN&WR

Staff Report

MUSC Children's Hospital is once again the only such institution in South Carolina to be ranked among U.S. News & World Report's 2017-18 edition of "America's Best Children's Hospitals."

The leading specialties for MUSC Children's Hospital are: No. 11 for cardiology and heart surgery; No. 28 for nephrology; No. 37 for urology; No. 36 for cancer; No. 47 for gastroenterology and GI surgery; and No. 45 for neurology and neurosurgery.

Newcomers to the list this year, although known throughout the state for their unparalleled, specialized care, neurology and neurosurgery were recognized for quality of care, strong clinical outcomes and survival rates. In addition, the cardiology and heart surgery programs now sit one spot away from the top 10 programs in the country. Cancer, gastroenterology and GI surgery, urology and nephrology continued strong showings for this ranking period.

Mark A. Scheurer, M.D., MUSC Children's Health chief of clinical services, said these rankings represent a steadfast commitment by the entire Children's Hospital staff to delivering the highest quality pediatric care in the region.

"Although each of these programs should be proud of these specific achievements, they truly reflect the collective hard work of all our teams. As we look to the opening of the new hospital in 2019, and continue developing our outpatient subspecialty care services within communities, we feel confident that we are striking the appropriate balance that puts the needs of our patients and their families first."

The 11th annual rankings highlight the top 50 U.S. pediatric hospitals in each of 10 specialties: cancer, cardiology and heart surgery, diabetes and endocrinology, gastroenterology and GI surgery, neonatology, nephrology, neurology and neurosurgery, orthopedics, pulmonology and urology. In the 2017-18 rankings, 81 of the 187 hospitals surveyed were ranked in at least one of the 10 specialties.

The current methodology combines clinical and operational data, results from a reputational survey of board-certified pediatric specialists and supplemental



Scheurer

information from resources such as the National Cancer Institute. RTI International collects and analyzes the data for the rankings. The methodology reflects the level and quality of hospital resources directly related to patient care, such as staffing, technology and special services; delivery of health care, such as reputation among pediatric specialists, programs that prevent infections and adherence to best practices; and clinical outcomes, such as patient survival, infection rates and complications. Survival rates, adequacy of nurse staffing and procedure volume are among the many kinds of information about each ranked hospital that can be viewed by visiting <http://health.usnews.com/best-hospitals/pediatric-ranking>.

Patrick J. Cawley, M.D., MUSC Health CEO and university vice president for health affairs, said the care team members at the Children's Hospital once again have another source of validation for the excellent care they are delivering to our patients and their families every day.

"Clearly, the biggest validation they receive comes from those they serve, but these annual rankings certainly confirm that collectively we are leading health innovation for all the lives we touch at our Children's Hospital," Cawley said. "We can't wait to see how the MUSC Shawn Jenkins Children's Hospital will take the state's comprehensive care of children and their families to new and unprecedented heights for our state."