

## MUSC joins race to find COVID-19 vaccine

BY BRYCE DONOVAN

[donovanb@musc.edu](mailto:donovanb@musc.edu)

As researchers from across the globe race to find a vaccine for the coronavirus, MUSC has entered as a key player in that fight. Along with AstraZeneca and IQVIA, MUSC was selected to be part of a phase 3 trial of a vaccine that has shown promise in battling COVID-19.

"The science behind it looks good," said MUSC emergency medicine physician Gary Headden, M.D., who will be leading the trial. "So, I'd say I'm optimistic."

MUSC and Charleston will be part of the first wave of locations across the United States to test the vaccine. In total, manufacturers and researchers hope to enroll and collect data on 30,000 people across 20 cities in the U.S., with as many as 1,500 of those being from right here in Charleston.

For context: Once a pharmaceutical company thinks it has a promising vaccine on its hands, it begins clinical trials. According to the U.S. Food and Drug Administration, these trials consist of three phases:

- ❑ Phase 1, also referred to as initial human studies, is performed on small groups and focused on safety and the recipient's immune response to the vaccine.
- ❑ Phase 2, which are usually administered on hundreds of people, are still focused on safety and fine-tuning the dosage and treatment regimen required.
- ❑ Phase 3 typically enrolls thousands of individuals and focuses on the safety and efficacy (how well it works) in a population.

If successful, the manufacturer can then submit an

See **VACCINE** on page 11



*Photo Provided*

**Dr. DaNine Fleming was among four faculty members celebrated for teaching excellence with 10 others recognized at the Aug. 18 virtual MUSC faculty awards event.**

## MUSC faculty awards event kicks off start of fall semester during unprecedented times

BY CINDY ABOLE

[aboleca@musc.edu](mailto:aboleca@musc.edu)

Four extraordinary faculty members were honored for their contributions to teaching excellence and three for their outstanding career contributions and service to MUSC. Another seven faculty members were celebrated for their excellence in interprofessional education, scholarship and population health and as outstanding clinicians. The awards were presented at the institution's annual faculty convocation held Aug. 18. The event, which marks the beginning of the 2020-2021 academic year, was hosted by Lisa

K. Saladin, PT., Ph.D., executive vice president for Academic Affairs and provost, and attended by more than 125 viewers in a first-ever virtual Zoom event established due to the COVID-19 pandemic.

MUSC President David J. Cole, M.D., FACS, was in attendance and shared congratulatory remarks.

"MUSC is very privileged to have you as highly dedicated and innovative clinicians, scholars and scientists to represent the heart, mind and soul of this institution. And every day your dedication to the betterment of others is visible through your

See **AWARDS** on page 6

5

**Front-line Faces**  
Florence nurse makes a difference.

7

**Adult Burn Center**  
May reopening proves timely for burn patient.

3

**Welcome letters**

4

**Meet Sean Cooney**

9

**BOT Update**

# MUSC sees increase in MIS-C, rare COVID complication in children

By HELEN ADAMS

adamshel@musc.edu

More than a dozen kids in South Carolina have developed MIS-C, which stands for multisystem inflammatory syndrome in children. It's a rare but dangerous complication of COVID-19. Six of the children have been treated at MUSC Children's Health, including four who are there now.

Pediatric critical care intensivist Elizabeth Mack, M.D., is among the doctors taking care of those kids at MUSC Children's Health. She's trying to raise awareness about the condition. "A lot of these kids have gone to a pediatrician, gone to an emergency room, gone back and forth seeking medical attention – kind of getting bounced around. We need people to know it's out there."

Mack, a professor in the College of Medicine at MUSC and division chief of Pediatric Critical Care Medicine, described the symptoms of MIS-C. "A



Mack

lot of these kids have had a high fever for several days, 104 or 105, without an obvious cause. They can have swollen lymph nodes. They can have a rash, peeling hands, red eyes, what looks like a mild sunburn on the hands and feet," she said.

"They can also get what we call a strawberry tongue – it's a really bright red, bumpy tongue. Most of them aren't eating. Some of are throwing up. Some of them have diarrhea. These are not well-looking kids. They're really puny."

Once the children are diagnosed with MIS-C, doctors can treat the condition for what it is: a delayed and harmful immune system response to COVID-19 that causes inflammation throughout the body. It can lead to long-term heart problems. MIS-C has also caused 10 deaths across the country but none in South Carolina.

"We treat it like Kawasaki disease, which involves IVIG, an immune modulator. This is one of the very rare cases where we use aspirin in children in order to try to prevent the heart effects. We also use steroids. And in some severe cases, which we've had a few of, we're using other immune modulating drugs," Mack said.

MUSC Children's Health is also testing a possible treatment for MIS-C called remestemcel-L, which goes by the

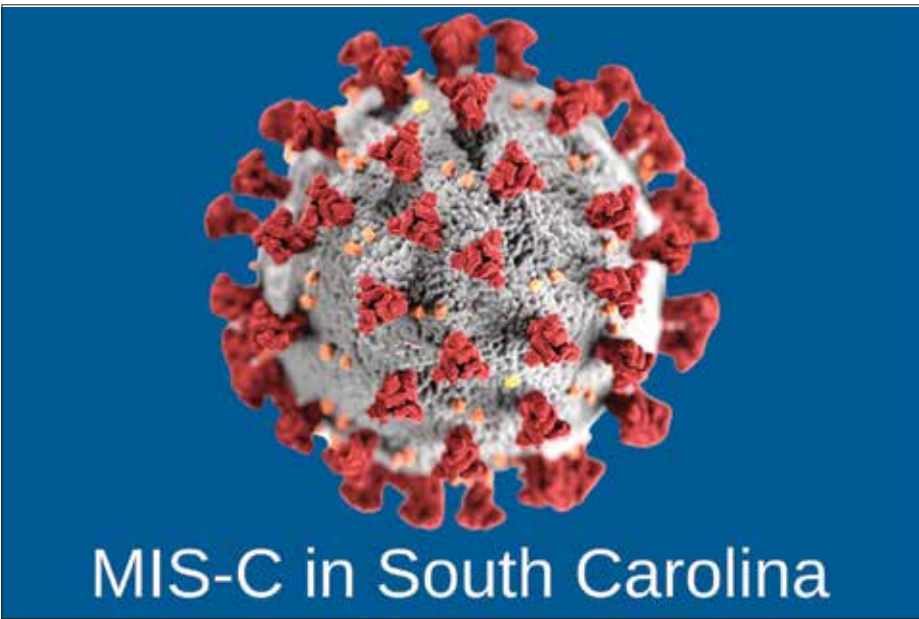


Image courtesy of CDC

**In rare cases, the coronavirus can cause multisystem inflammatory disorder in children, a dangerous complication.**

*"A lot of these kids have gone to a pediatrician, gone to an emergency room, gone back and forth seeking medical attention – kind of getting bounced around. We need people to know it's out there."*

Elizabeth Mack, M.D.

brand name Ryoncil. It uses cells from the bone marrow of healthy people that have been expanded in a lab to

try to combat the syndrome's harmful response.

Mack said MIS-C shows up two to four weeks after a child is infected with COVID-19. It typically affects kids who are elementary or middle schoolage. Nationally, more than 70% of MIS-C cases have been in children who are Black or Hispanic/Latino, according to the Centers for Disease Control and Prevention.

In South Carolina, it's unclear what effect the state's declining number of new COVID-19 cases will have on the rate of MIS-C. "We're not sure what direction this will go – if it will continue to rise or it will fall. You can think of it as a delayed marker of COVID," Mack said.

## MUSC CATALYST news

### Editorial Office

MUSC Office of Public Affairs & Media Relations, 135 Cannon Street, Suite 403C, Charleston, SC 29425.

843-792-4107

Fax: 843-792-6723

Editor: Cindy Abole

catalyst@musc.edu

The MUSC Catalyst News is published bi-monthly. Paid advertisements, which do not represent an endorsement by MUSC or the state of South Carolina, are handled by Island Publications Inc., Moultrie News, 134 Columbus St., Charleston, S.C., 843-958-7480, 958-7384, 958-7488 or 937-7489. E-mail: [advertising@moultrienews.com](mailto:advertising@moultrienews.com).

### Applications for 2020 MUWC scholarships due Sept. 10

The Medical University Womens Club is accepting applications for its annual scholarships to deserving MUSC students enrolled in all six of MUSC's colleges. The MUWC plans to award a total of \$17,000 in scholarships.

Full-time MUSC students, who are in their second or subsequent years, as well as previous applicants may apply.

An applicant must provide a copy of his/her transcript (does not have to be official), a personal statement and letter of recommendation from an MUSC faculty member as part of the application process.

Application deadline is 4 p.m., Thursday, Sept. 10. Applications must be submitted to [muwcscholarship@gmail.com](mailto:muwcscholarship@gmail.com). For information, email [muwcscholarship@gmail.com](mailto:muwcscholarship@gmail.com).

Letter from the  
Office of the

## PROVOST

Aug. 21, 2020

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 enjoyed the summer, despite the challenging times we face, and that each of you took time 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 to thank you for choosing MUSC for your education. Please know that we are committed to providing you an excellent education, a safe environment and the support necessary to help you reach your goals.

We recognize that this is a unique time for all of us, and we are doing everything possible to keep everyone healthy while providing you with the highest quality education. Please review our academic reentry plan that details all we are doing to support you and keep you safe as well as the university directives that detail your responsibilities for preventing the spread of COVID-19 on campus at <https://web.musc.edu/coronavirusupdates>.

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 reduce stress. Caring for yourselves should be a constant goal that will help you manage stress and overcome difficult situations. I know that is easier said than done, but it is critical to your physical and mental health and potentially to your ultimate success.

We would not be the Medical University of South Carolina without you — our students. You are central to our mission and our vision for the future. This will not be the year that any of us would have chosen, and there will be challenges ahead. However, we will get through this together, and we are committed to answering your questions and concerns while striving to maintain the highest standards of excellence in academic education. I look forward to working with you this year as you write the next chapters of your personal stories and as we work together to create a better MUSC.

*Lisa K. Saladin, PT, Ph.D.*

*Executive vice president for Academic Affairs and provost*



Saladin

### Dr. Carlos Salinas Dental Program for Diagnosis, Treatment virtual seminar set for Sept. 25

The James B. Edwards College of Dental Medicine is proud to host the 22nd anniversary of its annual continuing education virtual seminar for the Dr. Carlos F. Salinas Dental Program for the Diagnosis and Treatment of Individuals with Special Health Care Needs on Friday, Sept. 25.

Look out for details with registration and agenda. For information, contact Christine Coleman, [rawlst@musc.edu](mailto:rawlst@musc.edu) or 843-792-1911.

## A letter from the SGA President

Fellow classmates,

Welcome new students, and welcome back to those of you returning! I hope that all of you were able to find some new peace through all the madness that the world has brought upon us this summer. The abrupt and unfortunate end to our spring semester was unexpected and unprecedented, and we are doing everything in our power to make sure something like that doesn't happen again. I have been on campus this summer and have been excited to see the widespread usage of masks and interpret this as a sign that we are all willing to work together as one big family to meet our goals.

I know the last five months have been some of the most trying times for us as students, but I am proud to say that MUSC's Student Government Association (SGA) has worked hard to make sure that the student experience wasn't compromised since the start of our term. This summer, we rolled out our fully virtual comment box that allows students to express questions or concerns so that we can address them with the administration. We made an informational (and somewhat comical) video demonstrating proper mask use and the university directives for being on campus. We have also started SGA's first-ever virtual book club and will continue this throughout the school year. We also held a virtual hip-hop dance class as part of Student Programs and Student Diversity's community healing spaces series. It has been a fun and exciting new time for us all to engage with people on campus that we normally wouldn't, and virtual programming has a way of bringing very different people mere centimeters apart (on a screen).

Looking forward to the future, the SGA is committed to finding our new normal. We have brought back the annual back to school party that was widely missed by students last year, in a fun yet socially distanced way. We will be holding a Drive-in Movie Night at Holy City Drive In on Aug. 27. Also, the SGA will be participating in the first-ever virtual student activities fair on Sept. 24. This is a great opportunity for both first-year students and also returning students who want to get involved on campus. You will have the opportunity to hear about both student organizations, services on campus as well as opportunities to volunteer. We are working hard to make sure that we keep a steady stream of virtual programming to benefit the wellness of our student body in every sense of the word. We have many exciting things planned, and we are excited to engage with you all, so please follow our Instagram account (@musc\_sga) and continue reading



Kirkpatrick

the student broadcast messages that are delivered to your email.

MUSC's SGA is an interprofessional organization comprised of representatives from all six colleges on campus. We serve as a voice for the students and work to enhance the student experience, whether you are on or off campus this semester. We have direct access to the administration and are frequently asked to make important university decisions on behalf of the student body. Holding an SGA representative position can be a very meaningful experience, and I encourage you all to consider running. You will have the opportunity to make decisions on campus and will have the responsibility to voice the concerns of the students you represent. SGA meetings will all be held virtually this year, and they are not only open to our elected voting members but the entire student body. More information can be found on the SGA website.

I encourage you all to take advantage of this unique virtual space we are all living and working in and consider that there are some parts of the student experience that will be better than ever before. I look forward to working with you all and representing you this year and please don't hesitate to reach out if you feel there is something I or the SGA can do for you!

*Joy Kirkpatrick*  
SGA president, '20-'21

### The Giving Back Program

Dear MUSC Health care team,

Do you have an idea to improve areas around the health system? If you had up to \$2,000, could you make that idea come to life?

The Giving Back program was established by the University Medical Center in 2011 as a way for grateful patients and families to contribute directly back to the hospital. The grants are 100% funded by patient donations and are intended to fund MUHA employee projects that improve their area's impact on the medical center's mission.

Grants requested are not to exceed \$2,000 and can be used for a wide range of initiatives or to address special needs that include care team member training, travel, equipment, patient education, patient support, etc. Successful past submissions have included aromatherapy for patients, training pouches for pets and interactive patient activities. The Giving Back grants must follow the MUSC Foundation Accounts Payable Policy and Procedures (PDF).

To apply, please visit <https://horseshoe.musc.edu/everyone/foundation-and-fundraising/muha-giving-back-grant>.

**Important 2020 dates:**

- ☐ **Sept. 1** – Application process opens.
- ☐ **Sept. 11** – Application process closes at 5 p.m.
- ☐ **Sept. 18** – Applications are submitted to the committee.
- ☐ **Sept. 27** – Grant recipients are notified and announced.
- ☐ **Oct. 1** – Recipients are awarded grants.

Note: Grant recipients are selected on an annual basis, and funds must be used by the end of each fiscal year – June 30.

For more information, please contact Stephanie Taylor, MUSC Health director of Diversity and Inclusion at [taylorst@musc.edu](mailto:taylorst@musc.edu) or 843-792-2341.

### 2020 MUSC Virtual Benefits Fair Webinar set for Sept. 21-25

The University and Medical Center Human Resources departments will be hosting a virtual benefits fair, Sept. 21-25.

The fair will include free live webinars with various vendors including AFLAC, AIG/VALIC, ASIFlex, Empower Retirement, MetLife, TIAA and others.

Employees are encouraged to attend sessions to learn about plan changes that will be effective Jan. 1, 2021.

Send any questions about the fair to [benefits@musc.edu](mailto:benefits@musc.edu).

Conversation Cafe  
9.2.2020

STAY AT HOME  
EDITION

CARTA  
INFO  
SESSION



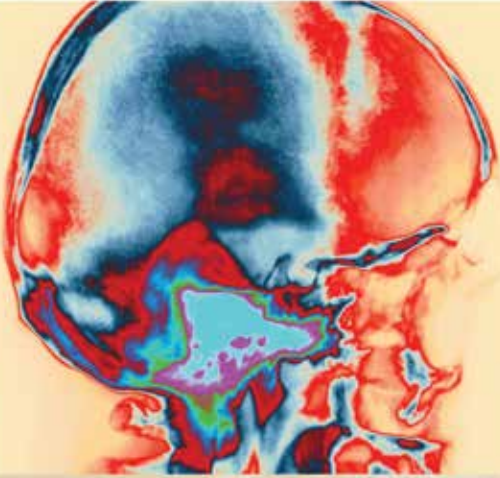
Updates on park and ride system,  
health safety measures, and a Q&A session

REGISTER NOW  
[tinyurl.com/CARTAsession](https://tinyurl.com/CARTAsession)

Wednesday, September 2nd  
Remote Event - 1 PM EST

 MUSC Sustainability & Recycling

[musc.edu/gogreen](https://musc.edu/gogreen)




Have you had a Traumatic Brain Injury?

MUSC and the RHJ VAMC are conducting a research study in healthy adults and people with Traumatic Brain Injury.

If you are between 30 and 65 years of age and interested in participating, please call or email for more information.

Contact Laura Lohmes at:  
(843) 792-7709  
or [lohmes@musc.edu](mailto:lohmes@musc.edu)

IRB Number: Pro00077915  
Date Approved: 7/6/2019

 MUSC  
Medical University of South Carolina  
Changing What's Possible

### MEET SEAN



Sean Cooney

**College; Year**  
*College of Health Professions—Anesthesia for Nurses; Second year*

**How are you changing what's possible at MUSC**  
*At MUSC, I do not see a limit of what is possible. I think as a group, we are new and eager anesthesia professionals seeking to better our community.*

**Hometown**  
*Cincinnati, Ohio*

**Something that relaxes you during COVID**  
*Focusing on the future beyond COVID*

**Favorite end-of-summer activity**  
*Grilling out*

**Favorite TV or cable series to binge watch**  
*Grey's Anatomy*

**Greatest moment in your life**  
*Getting to marry my high school sweetheart*

**Best thing about living in Charleston**  
*The walkability of the city is my favorite!*

## Front-line Faces

# Making a difference keeps MICU nurse going during COVID-19

*Editor's Note: This story is part of a series of profile stories of MUSC Health front-line health care workers who are providing medical care and support to patients with COVID-19.*

By JOHN RUSSELL

[russeljo@musc.edu](mailto:russeljo@musc.edu)

In the medical intensive care unit at MUSC Health Florence Medical Center on any given day, you'll hear machines making beeps or chirps in addition to the sound of ventilators keeping people alive and hopefully recovering from COVID-19. If you listen very carefully, you might hear an articulate, soft-spoken, motherly voice, too.

Chances are this warm, bubbly, confident voice belongs to registered nurse Alechia Broughton as she goes about caring for her COVID-19 patients. She speaks from experience that comes not only from her time in the medical profession but also her life.

At 51, Broughton graduated from Greenville Technical College as a registered nurse. Some people would be planning for retirement, but not her.

"I decided to go back to school late in life because what I was doing was not beneficial for anyone but me," Broughton, now 60 years old, said. "I wanted to be a servant for somebody. I made up my mind to quit what I was doing and go to nursing school."

Previously, she worked as a Christian school secretary in Atlanta, before her husband's job brought them to Greenville. Some life experiences, including losing her brother to cancer, helped form her decision to be a nurse and help people.

"I want to make a difference in someone's life. Small steps are a success, and if someone is doing a little bit better today than they were yesterday, it's worth it," she said. "My co-workers and I have lots of victories, and that's nice. We rejoice and dance around when someone does well and is able to leave our unit.

We also cry with the families for the ones that don't recover."

One patient of hers sticks in her mind as a victory, and she draws strength from the experience.

"We had a young fellow (in his 30s) with COVID. We honestly weren't sure if he would survive. He was with us for a good while. Eventually he got better and off the ventilator and discharged. It was great! It was a victory because we really were doubtful he was going to live, and he did. So, when we have bad days and we don't think we're helping people, we think back to him and his victory," said Broughton.

Make no bones about it — Broughton said treating COVID patients is unlike anything she has ever experienced. As a front-line worker, she takes care of the sickest COVID-19 patients. She spends her days diligently monitoring them in the MICU. Until COVID-19 came around, Broughton took care of a wider range of patients with other medical issues. Now, she exclusively works with COVID-positive patients. She has learned to be an active learner as treatments, medications and other processes evolve in treating these patients. Broughton said it's important that she talk to her patients as if they were conscious, telling them everything she is doing for them and what's going on.

"What we are doing now is not at all like what we did in the beginning. We didn't know a lot at the beginning, but as we've learned more, and more information is available and more treatment options, we change what we do to make patients better. I never learned any of this in nursing school. I think everyone, no matter where you are, is learning right now," she said.



Photo by John Russell

**MUSC Health Florence nurse Alechia Broughton says treating COVID-19 patients is unlike anything she's ever experienced.**

"I don't think anyone expected it to get to this point, and I really feel like it will be this way for a while," she added. "I know I have to prepare myself mentally that this may never be 'over,' and it could very well be our new normal."

See **NURSE** on page 11

**CITADEL**  
ENTERPRISES, INC.  
*Trusted Lowcountry Remodelers Since 1991*



## Custom Remodeling

Award-winning Charleston area family-owned custom remodeling company offering home renovation and design modifications to restore, maintain and enhance the beauty and the value of your home.



**2020 GUILDMASTER AWARD**  
with Highest Distinction for excellence in customer service and above standards workmanship - guildquality.com

**Bathroom Remodeling • Kitchen Remodeling • Additions • Outdoor Living**  
**Home Repair • Concierge Care • Design Build • Aging in Place**

**CALL US FOR ALL YOUR HOME REMODELING,  
RENOVATING OR REPAIR NEEDS.**

**Citadelenterprises.com 843-884-4303**

AWARDS *Continued from Page One*

passion for teaching, your scientific pursuits and your compassionate care.”

The MUSC Foundation’s teaching awards were established in 1994 as part of MUSC’s educational strategic plan to recognize the outstanding contributions of the recipients.

The faculty members honored this year include:

TEACHING EXCELLENCE AWARD

- ❑ Jesse Dean, Ph.D., associate professor, College of Health Professions–Physical Therapy, Educator–Lecturer.
- ❑ DaNine Fleming, Ed.D., associate professor, Office of the Chief Diversity Officer, Educator–Mentor/Clinical–Professional.
- ❑ Lisa Kerr, Ph.D., professor, Center for Academic Excellence/Department of Humanities, Educator–Mentor/Academic–Scholarship.
- ❑ Brian Houston, M.D., assistant professor, Department of Medicine, Teaching Excellence/Developing Teacher.

DISTINGUISHED FACULTY SERVICE AWARD

- ❑ Douglass Norcross, M.D., professor, Department of Surgery
- ❑ Cassandra Salgado, M.D., professor, Division of Infectious Diseases
- ❑ Karen Wager, DBA, professor, College of Health Professions

FACULTY AWARDS

- ❑ Phillip Hall, Pharm.D., professor and dean, College of Pharmacy – Commitment to Excellence in Interprofessional Education and Collaborative Practice.
- ❑ Eric Meissner, M.D., Ph.D., assistant professor, Department of Medicine – Developing Scholar.
- ❑ Kathleen Brady, M.D., Ph.D., Distinguished University Professor and vice president for Research – Peggy Schachte Research Mentor.
- ❑ Dee Ford, M.D., professor, Department of Pulmonary, Critical Care, Allergy & Sleep Medicine – Population Health.
- ❑ Andrew Eiseman, M.D., professor and director, Storm Eye Institute – Outstanding Clinician.
- ❑ Evert Eriksson, M.D., associate professor, Department of Surgery – Outstanding Clinician.
- ❑ Nagraj Kasi, M.D., assistant professor, Department of Pediatrics – Outstanding Clinician.

Cole shared with those in attendance that ultimately, to succeed in its endeavors and in trying to reach its potential, the institution must function as “OneMUSC” – the collaboration required to beat the pressure cooker called COVID-19 head on.

“It’s a great example of our potential,” he explained. “Facing an uncertain, everchanging future is a



**Dr. Tom Smith, associate director for MUSC’s Center for Academic Excellence and Writing Center, introduced honorees and read the citations for 14 faculty awards.**

*Image by Sarah Pack*

**Jesse Dean, Ph.D.**  
**College of Health Professions**  
**Educator–Lecturer**

“Professor Dean somewhat humbly reported that teaching does not come naturally to him. Nevertheless, Dean is an award winner this year because he dedicated himself to becoming outstanding through teacher training programs, by observing expert teachers and through experimenting in his classroom. Over time, he has refined his teaching skills, turning himself into the educator that both students and fellow faculty praise today.”

**Lisa Kerr, Ph.D.**  
**Center for Academic Excellence–Writing Center**  
**Educator–Mentor/Academic–Scholarship**

“During one-on-one sessions with students in the CAE and Writing Center, Kerr works to empower

challenge, but I know we’re on the right path. If we stay focused – with a sense of hope and expectancy – we will continue to succeed. I believe in you, I believe in MUSC. I believe that together we are and will continue to make differences locally, nationally and across the world. We’re committed, and we’re resourceful. We have the momentum to continue on the path to becoming a preeminent academic health science center in this country. So on a day when we celebrate academic excellence, I thank you for your achievements and tireless commitment. Our patients, students and medicine are the beneficiaries of your heart and spirit, your expertise and wisdom.”



**Dean**

her students to think and communicate critically and compassionately. She wants students to assess the quality of their thinking and the organization of their ideas so that they become expert at learning, adapting, thinking, re-thinking, and remaining forever curious and creative.”



**Kerr**

**DaNine Fleming, Ed.D.**  
**Office of the Chief Diversity Officer**  
**Educator–Mentor/Clinical Professional**

“Fleming was recruited to MUSC in 2008 as the university’s inaugural director of training and intercultural education. She went right to work creating diversity and inclusion education programs for MUSC. Her work was pivotal to every college’s efforts to educate and graduate a more culturally aware, culturally competent, culturally engaged, and culturally sensitive health care workforce.”



**Fleming**

**Brian Houston, M.D.**  
**Department of Medicine–Division of Cardiology**  
**Developing Teacher**

“Houston’s teaching success is rooted in his teaching

*See AWARDS on page 10*

# Reopened MUSC burn center offers cutting-edge care

BY LESLIE CANTU

[cantul@musc.edu](mailto:cantul@musc.edu)

A Dorchester County man is home a week earlier than might typically be expected after an MUSC Health team performed the first reported successful minimally invasive skin graft on a burn in the U.S.

Tommy Porcha, 54, suffered deep second-degree burns over 17% of his body on July 26. Care for burns like Porcha's hasn't changed much since the 1970s whereby a surgeon would have performed a skin graft by removing almost all the skin from Porcha's thighs, then stretching it and placing it over the wound to regrow.

Luckily for Porcha, MUSC Health's recently reopened burn center is one of a handful of burn centers in the U.S. that is participating in a study of using an enzyme gel rather than traditional surgery to remove burn wounds. In addition, MUSC Health regularly uses a regenerative technology that utilizes a skin cell spray rather than entire sheets of skin.

The combination of these two technologies allowed Steven Kahn, M.D., chief of burn surgery, to avoid a conventional skin graft and, instead, perform a more precise repair that should result in less scarring over the burned areas and more long-term mobility.

When the accident happened, Porcha was helping a friend to burn old logs on his property near Woodland High School. But he was distracted for just a moment.

"That one second it took to distract me was all it took to explode," Porcha said.

He managed to launch himself forward off the pile as the flash burn scorched the back of his neck, arms and leg.

"It was such an intense heat," he recalled. The pain of his exposed wounds was excruciating as the sunlight hit them – nonetheless, Porcha drove himself to Summerville Medical Center.

The staff there told him he needed to be treated at a burn center. Until recently, for many adult South Carolinians, that would have meant going to the burn center in Augusta, Georgia. But Kahn was brought on board in July 2019 with the task of creating a comprehensive burn center in Charleston to care for patients of all ages. This essentially involved reopening MUSC Health's adult burn center, closed since 2002. Kahn and his team began taking adult patients in May, which turned out to be perfect timing for Porcha.

The first step for the surgeon is removing all of the damaged tissue. This is typically done visually, using a



*Photos by Sarah Pack*

**MUSC nurse practitioner Elizabeth Halicki puts bandages on Tommy Porcha's burn wounds.**



**Dr. Steven Kahn checks on Tommy Porcha's mobility almost two weeks after he was burned. The shirt that Porcha was wearing provided some protection from the fire. The three rectangular wounds below his right shoulder are where Kahn took skin to create the skin cell spray for the minimally invasive skin graft.**

knife – obviously with great skill that comes from years of experience, but still, surgeons can't see down to a cellular level with their eyes. That's where the enzyme therapy comes in.

The product, called NexoBrid, is derived from pineapple stems. It eats away at dead tissue but won't touch living tissue – even minute traces of living tissue invisible to the surgeon, Kahn said. The product is awaiting approval from the U.S. Food and Drug Administration after completing phase 3 clinical trials.

"The enzyme is more likely to preserve a small amount of healthy dermis, the underlayer of the skin, to help with healing," Kahn said.

This precision cleaning of the wound means patients have more dermis preserved and are less likely to need a skin graft, he said. If they do need a conventional

skin graft, it is usually about a third of the size of what might be expected because so much of the still-living dermis has been protected. But although conventional skin grafts are lifesaving, they aren't a perfect solution. They're painful, they leave scars and they can tighten up over time, Kahn said.

Porcha was able to avoid a conventional skin graft. With the wound cleaned with the enzymatic solution, Kahn believed Porcha was a good candidate for another relatively new technology – Spray-On Skin Cells. Even if there aren't enough remaining dermis and healthy skin cells that can heal on their own after wound cleaning, the skin cell spray can be used to replace missing cells and allow healing where it wouldn't have otherwise

*See BURN on page 11*

# Grant allows expansion of program to increase focus on diabetes intervention

BY BRYCE DONOVAN  
donovanb@musc.edu

In this odd and uncertain era of COVID-19, it's often easy for other health concerns to be overlooked. But Blue Cross Blue Shield of South Carolina (BCBSSC) and the BCBSSC Foundation have joined forces to make sure one of those areas of concern, Type 2 diabetes, isn't among them.

Recently, they announced that they will be joining together with several organizations well-established in the trenches of diabetes care, including the Alliance for a Healthier South Carolina and the state's Department of Health and Environmental Control, to launch Diabetes Free SC (DFSC), a long-term, multi-million dollar statewide initiative dedicated to addressing disparities in care. Specifically, they will focus on improved pregnancy outcomes in women with diabetes, reduced lifelong risk of Type 2 diabetes in children and the prevention of diabetes and its complications in adults.

One of the main beneficiaries of these grants is the Medical University of South Carolina and its Boeing Center for Children's Wellness (BCCW), led by MUSC pediatrician Janice Key, M.D. Key and her program will use the grant to expand the Docs Adopt School Health program, which focuses on nutrition, physical activity, employee wellness and social and emotional learning.

"Diabetes is an extremely expensive and life-altering disease. The best way to prevent it is to go way upstream to childhood. If done right, we can help set up lifelong habits that will lead to healthier adults. Blue Cross Blue Shield of South Carolina is investing in a long-term idea, and it's so incredibly exciting to have their support," Key said.

For almost a decade, Key and her team have been operating the BCCW, and its Docs Adopt program has been

implemented in almost 200 schools across the state for roughly 134,000 kids. The initiative educates students and teachers about wellness and nutrition and then motivates them to make wellness changes in seven categories through a fun competition between schools. There are monetary rewards for the schools that do the best, which tend to really motivate the teachers and the kids.

"Our hypothesis is that healthy kids are better students," Key said. "Our data shows that the schools that participate have a higher attendance rate and a lower suspension rate, not to mention a higher graduation rate. That's pretty thrilling. To see that it's actually working, I can't tell you how thrilling that is."

Adding diabetes prevention into the mix will only help to strengthen the program, Key said.

The grant will support additional coordinators and monetary awards necessary to expand into eight additional school districts (thus serving a total of 21 of the 85 districts in state) and will add a biostatistician to improve the rigor and consistency of data collection and analysis. The funding is hoped to allow the initiative to reach an additional 21,000 children and 3,000 teachers.

According to Timothy Lyons, M.D., Blue Cross' executive medical director for DFSC and an endocrinologist and professor of medicine at MUSC, the effort is an ambitious undertaking, but one that has enormous quality of life implications and profound economic consequences for health care expenditures in our state.

That's because, according to the American Diabetes Association, more than 500,000 adults in the state have diagnosed diabetes while an additional 120,000 are unaware that they have the disease. Another 26,000 people in South Carolina will be diagnosed this year.

"At Diabetes Free SC, a new initiative



*Photo by Sarah Pack*

**The Boeing Center for Children's Wellness teaches kids about all aspects of nutrition. Thanks to a grant from the Blue Cross Blue Shield of South Carolina Foundation, Type 2 diabetes prevention will now be a part of that program.**



**Students at a BCCW-participating school discuss the benefits of exercise and proper nutrition. The program motivates schools by providing incentives to the ones that show the most improvement over the course of the school year.**

of Blue Cross Blue Shield of South Carolina and the Blue Cross Blue Shield of South Carolina Foundation, we are honored to provide this grant funding to Dr. Key and her team at MUSC," Lyons said. "The overall mission of Diabetes Free SC is to align actions against diabetes for all citizens of South Carolina, and as one part of this effort, we aim to reduce the risk of future diabetes in children. The MUSC program will play a central role in

promoting healthy lifestyles for the state's schoolchildren. Dr. Key and her group at the MUSC Boeing Center for Children's Wellness have done significant and far-reaching work in the past, and this new funding will enable them to expand their program to reach a much larger number of school districts, schools and schoolchildren. Through this, MUSC will bring us one step closer to eliminating health disparities in diabetes care in South Carolina."

## Board reviews MUSC's statewide leadership, community impact during pandemic

Recently, MUSC and MUHA Board of Trustees held their regularly scheduled combined committee sessions and board meeting. With its fiscal year-end closing on June 30, MUSC administrators focused on the multilayered impacts of the novel coronavirus on the operations of all three missions of the institution — education, research and patient care — along with MUSC's leadership role across the community and state during this pandemic. To support established social distancing guidelines in the COVID-19 era, the MUSC trustees and administrators met via teleconference.

"The ripple effects of the pandemic continue to reach every area of our institution," said MUSC President David J. Cole, M.D., FACS. "We are committed to battling this virus at every turn and continue to find innovative ways to deliver safe, top-quality education and patient care in the face of this challenge. In addition, we are engaged in ongoing research projects, many which, in collaboration with national networks, are designed to help define how to best treat and mitigate the impact of this virus."

"Throughout the pandemic, MUSC Health has been recognized and called upon as an essential health care resource, having performed nearly 138,000 diagnostic screening tests, primarily through mobile testing sites in communities across the state," said Patrick J. Cawley, M.D., CEO of MUSC Health and vice president for Health Affairs, University. "In partnership with the state legislature, MUSC set up mobile screening and collection sites in rural and underserved areas in an intentional bid to reach those who are most vulnerable and too often underserved when it comes to health care. Reliable diagnostic and antibody testing remain key elements of managing this unprecedented statewide health challenge."

□ Despite the hurdles posed by COVID-19, Cole chronicled many MUSC achievements during the 2020 fiscal year, including:

- The MUSC Shawn Jenkins Children's Hospital and Pearl Tourville Women's Pavilion opened in February.
  - MUSC became the only institution in the country to house both a Digestive Disease Research Core Center and a Center for Biomedical Research Excellence in Digestive and Liver Disease.
- <https://web.musc.edu/about/news-center/2020/06/05/two-new-centers>
- MUSC Health West Ashley Medical Pavilion opened as scheduled in December and served 10,418 patients in the first month, with 214 operative procedures.

- The South Carolina Clinical & Translational Research Institute, one of about 60 Clinical and Translational Science Award hubs nationwide, was awarded a \$24M five-year renewal.
- <https://web.musc.edu/about/news-center/2020/03/30/sctr-renewal>
- Safely held a series of virtual graduation celebrations, including a drive-through diploma pick-up event for its 660 graduates.
  - Transitioned more than 3,000 students to online education in response to the novel coronavirus within 24 hours' notice.
  - MUSC was first in the nation to combine drive-through testing with a virtual screening platform for potential COVID-19 patients.
  - MUSC and Clemson collaborated to launch the Healthy Me — Healthy SC program to increase health access and fight health disparities statewide. The program began expanding in early 2020 after successful pilots in Anderson, Barnwell and Williamsburg counties.
- <https://web.musc.edu/about/leadership/institutional-offices/communications/pamr/news-releases/2020/healthy-me-healthy-sc-to-increase-access-to-covid-19-testing-and-help-fight-health-disparities>
- MUSC, Clemson and Siemens Healthineers co-hosted a summit in Columbia about artificial intelligence (AI) to bring together faculty, clinicians and engineers. They shared information about current work, new opportunities and discussed the future of AI in health care. The pilot effort funded three joint AI projects with Clemson.
  - U.S. News & World Report named MUSC the state's best hospital for the fifth consecutive year.
  - The inaugural 2019 Lowvelo Bike Ride for Cancer Research engaged more than 709 cyclists and 300 volunteers, raising some \$650,000 to support MUSC Hollings Cancer Center.
  - The U.S. Patent Office granted the MUSC Foundation for Research Development 18 patents.
  - MUSC received \$25 million from the General Assembly to partner with the South Carolina Department of Health and Environmental Control and the South Carolina Hospital Association to develop and deploy a statewide testing plan. The focus of the plan is on rural and underserved areas of the state. More than 200 testing events/sites have been implemented.
  - MUSC Health continues to support the reopening

plan and testing strategy for the University of SC, College of Charleston, The Citadel and Clemson University.

□ The 16-member MUSC/MUHA board voted unanimously to elect James Lemon, DMD, as chairman and Charles W. Schulze, CPA, as vice chairman. Each will serve a two-year term. Lemon is an oral and maxillofacial surgeon by training. A native of Barnwell, he has lived in Columbia for more than three decades. Elected to the MUSC board in 2014, he serves as the medical professional representative from the 2nd Congressional District. Schulze, a Greenwood native, began his first term as an MUSC trustee in 2002 as the lay representative from the 3rd Congressional District. A retired shareholder of a regional accounting and consulting firm, Schulze currently practices and is an expert in financial forensics.

- In other business, the board voted to approve:
- The fiscal year 2021 budgets for MUSC (University), the MUSC Health system and MUSC Physicians.
  - Moving the spring commencement and graduation date from its originally scheduled date of May 22 to May 15, 2021.
  - A seven-year lease to provide new clinical care space for the MUSC Neuro Rehabilitation Institute in Charleston.
  - A supplemental HVAC system for the MUSC Hollings Cancer Center Compounding Pharmacy.
  - A lease renewal to provide 140 parking spaces at the intersection of Line Street and Hagood Avenue.

The MUSC/MUHA Board of Trustees serves as separate bodies to govern the university and hospital, normally holding two days of committee and board meetings six times a year.

For more information about the MUSC Board of Trustees, visit <http://academicdepartments.musc.edu/leadership/board/index.html>.



**Lemon**



**Schulze**

**AWARDS** *Continued from Page Six*

philosophy. He finds his work to be a fascinating story, too good to go untold, and believes that learning itself is supposed to be inherently enjoyable. At the same time, Houston always seeks the places where learners struggle – he rightly sees in struggle the opportunity to learn. Houston brings a commitment to medical education at all levels and is a model of a scholarly clinician–educator.”



**Houston**

**Douglass Norcross, M.D.**  
Department of Surgery  
Distinguished Faculty Service

In 1989, E. Douglass Norcross, M.D., came to the Medical University of South Carolina as assistant professor of surgery and medical director of the trauma center after earning his medical degree from the University of Medicine



**Norcross**

and Dentistry of New Jersey and completing a residency and fellowship at Cooper Hospital University Medical Center.  
“Thirty years after beginning a career, colleagues marvel at his contagious positive energy and smile. They describe a collaborator who easily “lifts the spirits” of all who interact with him, whether a patient or colleague. One thing that impresses so many colleagues about Norcross is that his absolute dedication to his patients does not seem to compete with his simultaneous devotion to departmental and health care colleagues. He understands and models behaviors that create collaborative, interprofessional, and interdisciplinary patient and family centered care.”

**Cassandra Salgado, M.D.**  
Division of Infectious Diseases  
Distinguished Faculty Service

“In no year has the university been able to see in more stark relief the daily commitment to MUSC’s clinical mission exhibited by Cassandra D. Salgado, M.D. Her expertise and demeanor have been critical to the institution’s COVID-19 response. She has



**Salgado**

served as the hospital epidemiologist and medical director of infection prevention since 2004. Since then, she has been making decisions every day in a composed, calm, trustworthy fashion to keep our community safe. She has persisted in 2020, working harder and longer than ever to help MUSC respond to the COVID-19 crisis with the same calm but sharp and informed intelligence that she models.”

**Karen Wager, DBA**  
College of Health Professions–  
Dean’s Office  
Distinguished Faculty Service



**Wager**

“To understand her contributions over a superlative career, the place to start is in the classroom and in her office, where she has taught and mentored innumerable students in four decades. The quantity of devotion to the educational mission is impressive simply by virtue of sustained commitment. But most notable to her nominators is the quality and intensity of her focus on students. She has been a recognized educator at MUSC to a degree that few have ever been.”



**2020 MUSC Virtual Benefits Fair**  
Webinar Schedule to be announced soon!  
September 21<sup>st</sup>-25<sup>th</sup>, 2020

The University and Medical Center Human Resources Departments will be hosting a Virtual Benefits Fair the week of September 21<sup>st</sup>-25<sup>th</sup>, 2020.

The fair will include free live webinars with several vendors including AFLAC, AIG/VALIC, ASIFlex, Empower Retirement, Metlife, TIAA and others. Webinars are mostly held in 30minute increments between the hours of 9am and 4pm.

Employees are encouraged to attend webinar sessions during the week of the fair to learn about plan changes effective January 1, retirement preparation and vendor product offerings.

Keep an eye on your MUSC email as more information will be publicized in early September with the final webinar schedule.

Direct any questions regarding the MUSC Virtual Benefits Fair to [benefits@musc.edu](mailto:benefits@musc.edu).





**MUSC Libraries is proud to introduce our new catalog!**

The existing catalog is still available and can be accessed through the Discover tool on the library webpage. The new catalog can be accessed via the New Catalog tab.

We hope you love the new catalog as much as we do.



## VACCINE *Continued from Page One*

application to the FDA for approval.

Because of the unique world we're living in, the U.S. government has implemented "Operation Warp Speed," which aims to deliver 300 million doses of a safe, effective vaccine for COVID-19 by January 2021. In other words, a process that often takes years is being compressed into mere months. To facilitate this process, the government is speeding up all aspects that can safely be sped up and is pumping billions of dollars into the pharmaceutical industry. AstraZeneca, the company that has manufactured the vaccine being tested at MUSC, received \$1.2 billion alone.

According to Amanda Cameron, Trial Innovation Network manager at MUSC and a key figure in bringing the trial to the university, even with Operation Warp Speed in play, this is one of few Phase III vaccine trials out there.

"For us to get to bring a trial here to MUSC is incredible, but the fact that it's one that researchers are optimistic about is even more exciting," she said.

Recently, Russia claimed to have a vaccine ready. U.S. researchers believe it



**Learn more about the trial or to enroll, visit <https://research.musc.edu/clinical-trials/coronavirus-clinical-trials>.**

has effectively only cleared Phase I, so to roll it out so quickly could prove to be reckless, Headden said.

This week, MUSC will go live with a webpage, officially opening the trial to applicants. The hopes are that soon

thereafter, the study's first patients will be seen at the Clinical Sciences Building on MUSC's downtown campus. Several hundred have already expressed interest in participation, and MUSC clinical research manager Ashley Warden said the team would love to get as many people involved as possible.

"This is a really important research opportunity," Warden said. "We need to have a therapy that can bring this pandemic into control. It would be best that those that participate in this trial are

**MUSC expects to start seeing participants in the trial by week's end.**

*Photo by Sarah Pack*

representative of our region."

The trial — which will be double-blind, randomized and placebo-controlled in a 2:1 ratio, meaning that for every two people who get the active vaccine, one will get the placebo — will require the participants to come in at Day 1 and Day 29 to receive their vaccines or the placebo.

Researchers and doctors hope each of these two visits will last about 90 minutes, during which time the participants will undergo a physical examination that includes having their medical histories reviewed, blood drawn for testing and a nasal swab test for COVID-19. The vaccine will then be administered.

All subjects will be monitored over a period of two years. During this time, those who show any signs of illness that could be due to COVID-19 will undergo additional testing. Compensation will be provided for participants' time.

"This is a big study with an aggressive time frame, which is expected of a trial of this importance," Headden said. "As for the science behind it, it's totally solid. Put it this way: I would let my family take this vaccine."

## BURN *Continued from Page Seven*

occurred without a graft.

"I thought we could spare him a lot of pain and suffering by avoiding a large donor site. He had 17% burns, and half of the area needed a skin graft. But there was a thin layer of dermis left after the enzyme was put on — enough that I felt comfortable using the skin cell spray," Kahn said.

Instead of taking all of the skin from Porcha's thighs, Kahn removed three sections from an unharmed section of his back of about a half-dollar size each. The skin from those donor sites was then placed in the ReCell device to incubate for about 20 minutes. In that time, the skin was broken down and turned into a skin cell spray capable of covering 80 times the area of the donor sites.

"That's very dramatic compared to regular grafting," Kahn said. With a conventional skin graft, he explained, "We usually only expand one to three times the original size, and the more you expand them, the worse the scar and the worse the functional outcome is."

The regenerated skin cells are then sprayed over the wound, where they begin to grow.

Kahn said the spray can be used without a graft only on certain burns, like Porcha's deep second-degree burns. The enzyme is available only through a clinical trial, and this is the first reported combination of the two technologies in the



*Photo by Sarah Pack*

**Dr. Steven Kahn checks on Tommy Porcha's burn wounds that he received from a gasoline fire.**

United States. If only one or the other had been used, Porcha would have still needed a graft, Kahn said.

Porcha is grateful for the entire team, which in addition to Kahn includes nurses, physical therapists, occupational therapists, and dietitians.

"I'm blessed to have you in my corner," he told Kahn.

## NURSE *Continued from Page Five*

When not working, Broughton relaxes by spending time with her husband, five children and seven grandchildren. She is happy with the decision she made almost a decade ago to be a nurse.

"I want to make sure all my co-workers know they are making a difference. They may not see it or acknowledge it but, ultimately, at the end of the day when you lay your head on the pillow at night, you know you did something good."

**MUSC Urban Farm is welcoming back volunteers**

The Urban Farm is welcoming back volunteers. Schedule: Mondays, Wednesdays and Saturdays, 9 a.m. to noon; and Tuesdays and Thursdays, 3 to 6 p.m. In order to maintain a safe, socially distant volunteer session, sign up for the work and learns online is required 24 hours in advance. Limit 10 people. Sign up here: <https://forms.gle/MzEDRhcoSUi8WHFe8>.

# College students save 10%.

Get 10% off your purchase through  
September 30, 2020 by presenting  
your valid student ID at checkout.



Only at Publix at 10 Westedge. Must pay in-store to receive the discount. Restrictions apply. See store for details.