

Living donors, recipients celebrate everlasting bond

BY LESLIE CANTU

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The bell on the sixth floor of University Hospital clanged again and again as three people celebrated their new kidneys and the strangers who made their transplants possible.

Tears, laughter, prayer and new friends marked Aug. 20, the day after six surgeries at MUSC Health in Charleston — three people came out with one less kidney and three with gently used kidneys that will let them live their lives again.

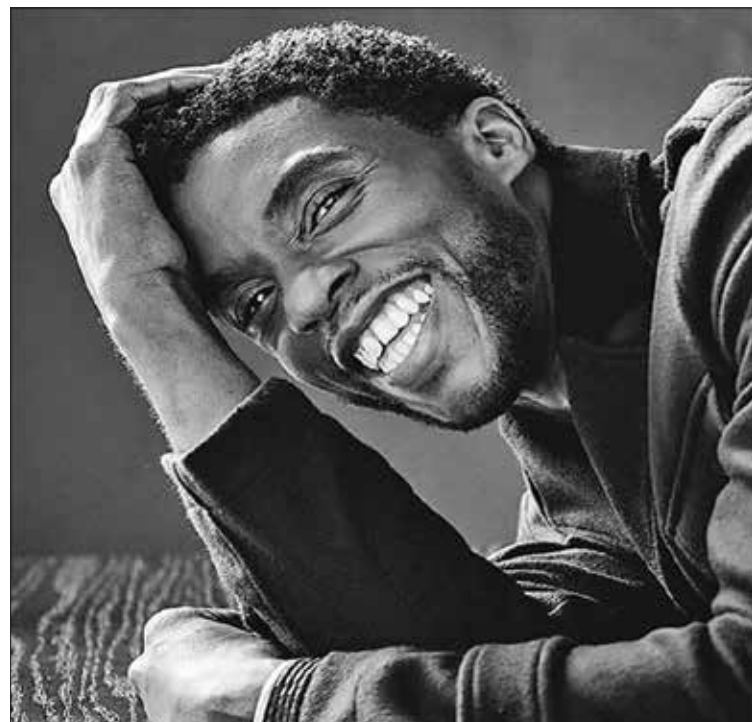
“She’s my superhero. What do you say to someone?” said recipient Glenn Ladines, 57, of Anderson, South Carolina, about Mandy DiDonato, 44, of Townville, who came forward to donate to him. Their sons play baseball together.

Though DiDonato intended to donate to Ladines, she wasn’t a match. Donors and recipients must meet multiple criteria, including compatible blood types and compatible immune systems. Other factors, such as age and size difference between donor and recipient, are also taken into consideration when determining the best match for a kidney transplant.

For roughly a decade, MUSC Health relied on an external organization, the National Kidney Registry, to facilitate surgeries when patients had a

See **DONOR** on page 8

South Carolina-born star’s death highlights rise of colon cancer in young adults



Chadwick Boseman's family announced his death on Instagram.

BY HELEN ADAMS

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In the wake of South Carolina native and movie star Chadwick Boseman’s death, doctors at MUSC Hollings Cancer Center are urging people of all ages to be aware of the symptoms of colon cancer.

Boseman, 43, was diagnosed with Stage 3 colon cancer in 2016. Stage 3 means the cancer had spread past the lining of his colon to the lymph nodes. The star of “Black Panther” and other high-profile movies died four years later, on Aug. 28.

Colon cancer specialist Virgilio George, M.D., was as surprised as anyone to see the actor born in Anderson died over the weekend. Boseman had kept his illness private and

showed no signs of it in public. But George said another aspect of the Black Panther star’s death is less surprising: his age. “The incidence of colon cancer in young population has steadily increased through the years.”



George

The American Cancer Society predicts that this year, 12% of colorectal cancer cases in the U.S. — which includes colon cancer and rectal cancer — will be diagnosed in people under the age of 50. That’s about 18,000 people.

See **CANCER** on page 9

6

Childbirth and COVID
Pandemic adds to things
to think about.

10

College Kickoff
Virtual orientations
sign of the times.

3 President’s letter
5 Meet Chelsey Petz, M.D.
11 Health and Well-Being

First in nation treatment for MIS-C, a COVID-19 complication, at MUSC Shawn Jenkins Children's Hospital

By HELEN ADAMS

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When 4-year-old K.J. Griffin arrived at MUSC Shawn Jenkins Children's Hospital in Charleston, South Carolina, the normally bubbly boy who loves to ride his bike and play outside with his friends was frighteningly limp.

His mother was stunned and exhausted. The little boy she'd worried about for days as his fever spiked had already been to a hospital near their home in rural Smoaks. But the condition K.J. was suffering from was so new and rare that it went unrecognized.

So Talaiyah Stephens watched over her son at home, doing what she could to ease his symptoms but feeling helpless as he got sicker and sicker. "He didn't want to talk. All he would do was sleep. He'd wake up, throw up, go to the bathroom, then lay back down and go to sleep. He would look at you like he was staring right through you."

When K.J.'s fever rose to 105 degrees and wouldn't come down, Stephens came to a decision. She would drive him to MUSC Shawn Jenkins Children's Hospital, about an hour and 15 minutes away. It was a choice that saved his life.

When they got to the hospital, K.J. was in shock, meaning his body wasn't getting enough blood flow to his vital organs. His heart was dangerously inflamed. He needed immediate treatment to prevent

organ damage.

As doctors worked to save K.J., they suspected he had MIS-C. Multisystem inflammatory syndrome in children is a rare complication of COVID-19 that shows up after the virus has left the body. It's been described as an immune reaction gone haywire. A test for COVID-19 antibodies came back positive a few days later, helping to confirm their suspicion.

K.J.'s mother learned that for days, her son's body had been locked in a battle that nobody could win. But now that she and his medical team knew what the problem was — an overreaction of his immune system to a virus she hadn't even realized he'd had — they could fight back.

Doctors immediately gave K.J. the standard treatment for MIS-C, including high-dose steroids, intravenous immunoglobulins and high-dose aspirin to try to help calm his overactive immune system. He also got medicine to help his heart and blood vessels work better and a blood thinner to help prevent clots.

But Stephens learned they could do more than that. MUSC Shawn Jenkins Children's Hospital is the first in the country authorized to give children with MIS-C who meet certain criteria a potential treatment called remestemcel-L, brand name Ryoncil, made by Mesoblast Limited. It uses mesenchymal stromal



Photo by Sarah Pack

K.J. Griffin, 4, is recovering from multisystem inflammatory syndrome in children. He was dangerously ill when he arrived at the hospital.

cells from the bone marrow of healthy donors. Those cells may be able to help regulate the immune systems of children with MIS-C and repair damaged tissue.

The treatment was actually developed for another purpose: to try to treat stem cell transplant patients who develop graft-versus-host disease, GVHD, that doesn't respond to steroid treatments. GVHD occurs when transplanted stem cells mount an immune system attack against the recipient's body. The hope is that the treatment will work against MIS-C, too, because it's also a harmful immune system reaction to a perceived

enemy.

K.J. qualified for the clinical trial and received the treatment through two IV infusions.

Pediatric infectious diseases specialist Allison Eckard, M.D., is leading the trial. "He definitely was starting to improve just with supportive care and our typical therapeutics," she said.

"But on the day we administered the first infusion, he still had evidence of cardiac dysfunction. The other worrisome elements of his level of disease at that point were his inflammatory

See **CHILD** on page 9



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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. For information, email muwcscholarship@gmail.com.

Letter from the
Office of the

PRESIDENT

Dear MUSC family,

It's hard to believe that it's the end of August, with Labor Day just around the corner. Time flies when you're... living through a global pandemic. And while it's highly unlikely that 2020 will go down in world history as the "#BestYearEver," it can be said that we've moved forward with unprecedented common purpose, a sense of anticipation and an innovative spirit that will certainly make the MUSC history book.

Along with senior leaders across the enterprise, I am encouraged by the continued positive data trends our team continues to track in the MUSC COVID-19 Epidemiology Intelligence Project. We believe that the current good news we are seeing throughout the areas we serve is likely a result of better and more widespread cooperation with masking, social distancing, excellent hand hygiene and protecting vulnerable populations. We know your efforts to plan, prepare and respond to COVID-19 have also made a difference, evidenced by just a few of the examples I've shared with you in previous weeks and months.

Last week marked the official start to our academic year as we welcomed new and returning students and our talented faculty back to MUSC –both on campus and via virtual learning platforms. We also celebrated virtually some of our incredible faculty members at our annual faculty awards and recognition ceremony. I hope you'll take a moment to watch this brief video from Kathy and me welcoming everyone "back to school."

I won't attempt to predict exactly how the fall season is going to play out for us and across the state and local communities, but I remain optimistic given recent data trends, observed positive changes in people's behaviors and my trust in the MUSC family to continue monitoring and responding appropriately. If there is another COVID-19 outbreak during the course of the fall, I am equally confident that we are prepared to move forward through that challenge safely and successfully.

Ultimately, our ability as a community and nation to defeat this pandemic will depend on the successful development and deployment of effective vaccines for this virus. So, I am excited to report that MUSC is one of a handful of clinical sites across the nation currently enrolling volunteers in a phase 3 clinical trial, evaluating the AZD1222 COVID-19 VACCINE. Please take the time to evaluate this opportunity if you have an interest in participating.

I realize that in fulfilling our vision and mission while also dealing with COVID-19, many MUSC family members are facing added layers of stress, frustration and worry in the daily cadence of life. I have heard many stories of how individual MUSC team members are facing work, family and life balance decisions that seem impossible. To help in this regard, leaders across the enterprise have been empowered to connect individuals to resources that can help them regain some of that balance. We're also improving remote work opportunities and evaluating possible new support structures as we adapt to the collective new normal. As changes and challenges continue to come our way, we understand that we need to think differently and implement new ways to get our work done well, maintain our mental health and take care of our loved ones.

So, as we approach Labor Day on Sept. 7, I hope you'll take a moment that day to join me in reflecting on "the contributions workers have made to the strength, prosperity and well-being of our country." I'll certainly be thinking of your contributions that day and the honor and privilege it is to serve alongside you



Cole



2020 MUSC Virtual Benefits Fair Webinar Schedule to be announced soon! September 21st-25th, 2020

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



in meeting the health needs of our local, statewide and national communities. Thank you for all that you do and for taking all necessary COVID-19 precautions during the last summer holiday of 2020.

Yours in service,

David J. Cole, M.D., FACS
MUSC president

Dental Medicine's 3D metal printer expands ideas for innovation

BY LESLIE CANTU
cantul@musc.edu

When the Zucker Institute for Applied Neurosciences at MUSC needed to bring to life a neurosurgeon's idea for better instrumentation for sacroiliac surgery, there was one obvious partner to turn to: the MUSC College of Dental Medicine.

The college is the only dental program in the nation to have the Sisma Mysint100 3D selective laser fusion printer that creates 3D prints from metal rather than plastic, and Walter Renne, D.M.D., a professor in the Department of Oral Rehabilitation and assistant dean of innovation and digital dentistry, is eager to see what it can do.

"3D printing is how we get stuff from our imagination into reality. One of the issues in the past was most of what we could print was plastic, and plastic degrades. You need something to actually function," he said. "Now, instead of imagining something and developing a plastic prototype that I can look at, I can imagine something and develop a real, usable final product that can be put into a drill or placed in a patient's mouth. It's really exciting to have that at the university."

The manufacturer, Sisma, donated the printer about six months ago. Renne said Sisma wanted its latest device to find a home in a college that would think up creative and innovative uses for it. Those uses aren't limited to dentistry, however.

The college and ZIAN have collaborated in the past, so it was natural for ZIAN to turn to Renne and colleagues for help with this project, which started with an idea from Stephen Kalhorn, M.D., a professor in the Department of Neurosurgery.

Kalhorn has worked several times before with ZIAN, a technology accelerator that exists to help MUSC's medical providers to develop their ideas for new devices or device improvements.

"I run things by them because then I can spend the majority of my time in the operating room actively helping patients," he said. "I can literally drop off a napkin sketch at a ZIAN engineer's desk or even

"Now, instead of imagining something and developing a plastic prototype that I can look at, I can imagine something and develop a real, useable final product that can be put into a drill or placed in a patient's mouth. It's really exciting to have that at the university."

Walter Renne, D.M.D.

less than that. There's even been times that I've just drawn on the dry-erase board in the OR and taken a picture and sent it to them, and they're off to the races."

This time, Kalhorn had an idea to improve sacroiliac joint fusion surgery. The sacroiliac joint is where the pelvis and spine meet; it is also a source of lower back pain. Fusion surgery encourages the two bones to grow together into one so there is no wiggle room between the two.

Bony fusion requires three elements, Kalhorn explained: stabilization, such as when a cast is placed on a broken limb; decortication, which is the removal of the top layer of tissue to ensure there's no cartilage or fibrous material blocking the bone cells from building a bridge between the two bones; and compression, whereby the pressure encourages more bone growth. But nothing on the market takes care of all three elements, he said.

"The impetus behind this idea was it accomplishes all three goals of bony fusion in one device and simplifies the whole process," he said.

From Kalhorn's idea, ZIAN drafted plans, and the College of Dental Medicine used the 3D metal printer to create a key prototype component for the fusion system. Mark Semler, chief executive and technology officer for ZIAN, said having this printer on campus makes a huge



Photos Provided

Dr. Walter Renne with the 3D printer located at the James B. Edwards College of Dental Medicine.



The component that Dr. Renne was able to print for the ZIAN team.

difference in moving projects along. What used to take weeks or months to fabricate at great expense due to the advanced materials involved can now be made in hours, he said.

The MUSC Foundation for Research Development filed an international PCT patent application for the device in August.

Kalhorn noted that his dental colleagues are "light years ahead of us" when it comes to implants and using technology like 3D printing.

"I hope this is a better bridge to work together more because they really

understand implants and bone really well. There are tricks they have that we can incorporate in the area we work on — the spine and SI joint," he said.

Renne said the dental college is just getting started with the possibilities offered by this printer. So far, aside from dental devices and appliances, they've worked with bioengineering on the properties of printed metals, printed prototype hip replacements and, of course, Kalhorn's device.

"I think it was the perfect partnership to help ZIAN print the intricate part they needed for their latest patent," he said.

MEET CHELSEY



Chelsey Petz, M.D.

Department; How long

Department of Medicine, Division of Internal Medicine; five years, then left for six years, and now back again

Hometown

Beemer, Nebraska

Something that relaxes you during COVID

Catching up with friends via Zoom

Favorite sports team

I love watching college basketball — especially my alma mater, the Creighton Bluejays

Favorite TV or cable series to binge watch

"Breaking Bad," the "Jack Ryan" series and more recently, "The Last Dance"

Favorite restaurant

FIG

Greatest moment in your life

Becoming a mom

Favorite place in the world

Barcelona, Spain

Schwartz Center Rounds

A multidisciplinary forum where caregivers discuss difficult social and emotional issues that arise while caring for patients

Visit "Schwartz Center Rounds" at <https://muscu.yammer.com/musc.edu> to sign up for email alerts about upcoming events

Month 7: How Are We Doing, Really?



Friday, September 11, 12-1 pm

Virtual Schwartz Rounds Webex Link

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Rounds will be virtual as long as Social Distancing is needed

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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@muscu.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@muscu.edu.

Childbirth during COVID: MUSC Health strives to provide as normal an experience as possible

BY LESLIE CANTU
cantul@musc.edu

There’s no shortage of things to worry about when you’re pregnant. Add in a global pandemic caused by a disease that doctors are still learning how to treat, and it’s natural for a pregnant woman’s anxiety levels to go through the roof.

One Charleston woman is on the other side now, home with her month-old baby boy, and she encourages other pregnant women to take COVID-19 seriously but not let it deter them from getting health care for themselves and their babies.

“I had a lot of anxiety during pregnancy about all of this,” said Ellen Burnette. “Once I spent an entire week at the hospital with the baby, I felt a lot more comfortable with the process of delivering at a hospital.”

Burnette stayed after she was discharged so she could be with her son, Noah, in the neonatal intensive care unit at MUSC Shawn Jenkins Children’s Hospital and Pearl Tourville Women’s Pavilion. He arrived a few weeks early and managed to pick a peak COVID time to make his appearance — on the day he was born, MUSC Health Charleston was caring for 108 COVID patients. Nonetheless, Ellen, husband Aaron and little Noah went home safely.

“I loved all the people who took care of me, and they made me feel really confident and very supported. I would do it again. It was awesome,” Burnette said.

Burnette and her husband found out she was pregnant right after Thanksgiving, before anyone in the U.S. had even contemplated what 2020 might bring. Her first couple of prenatal visits were typical, but once the pandemic swept over the nation, MUSC Health tightened up its policies for prenatal visits.

David Soper, M.D., vice chairman of the Department of Obstetrics and Gynecology and senior medical director of women’s health, said that prenatal visits are being conducted as a combination of virtual and in-person visits. The in-person visits are those at which a test will be performed, whether a blood draw, ultrasound or gestational diabetes test, or other care must be administered — for example, for those women who are Rh negative and need a RhoGam shot. In-between visits can be conducted virtually.



Photos Provided

Ellen Burnette holds baby Noah at home. His parents are thrilled he is home with them.



Noah, almost two months old, initially had a CPAP machine to help him breathe.

One support person is allowed at each in-person prenatal visit. Burnette was thankful that her husband could come to each visit, as she had pregnant friends elsewhere whose partners weren’t allowed in.

“Even the first ultrasound, at 12 weeks, it was mind-blowing for both of us. You couldn’t really see him or feel him yet, so when we saw him on the screen, it was like, ‘Oh, my God, it’s real,’” she said.

Burnette’s pregnancy progressed normally until 36 weeks, when she began bleeding. She and her husband headed to the hospital, where the medical team performed multiple tests but couldn’t find any reason for the bleeding. She was told to go home but to return if the bleeding continued. When she was still bleeding the following morning, July 12, the couple returned to the hospital. This time, as the team was checking her over, her water broke, and she was admitted.

MUSC Health performs COVID testing on everyone who is admitted, regardless of reason. This allows the hospital to keep all COVID patients together and away from patients who have tested negative. Pregnant women who know when they’ll be admitted, because they are scheduled for cesarean sections or inductions, are asked to schedule their COVID tests prior to admission.

Moms who show up in labor are initially placed in a negative pressure room and tested for COVID-19 on the spot.

“It was not as bad as I thought it would be,” Burnette said. She said everyone had to leave the room for 30 minutes, including Aaron, because the test itself can release the virus into the air if the patient is infected. A nurse in full personal protective equipment (PPE) entered and performed the test, which, Burnette said, felt a little like the pressure that happens right before a nose bleed. Then Burnette waited out the 30 minutes by herself. Once the time was up, people began to reenter the room, and when the test showed that she wasn’t infected, she was moved out of the negative pressure room to a labor and delivery room in the COVID-free zone.

See **BABY** on page 7



Photo Provided

Burnette with baby Noah at the MUSC Shawn Jenkins Children's Hospital and Pearl Tourville Women's Pavilion.

BABY *Continued from Page Six*

Had she tested positive, then the care team would have also administered an antibody test. Although people can test positive even after recovery, because virus particles remain floating in the bloodstream, if they also have antibodies, then it's likely been at least two weeks since they were infected, and thus researchers think they are unlikely to be infectious.

Margaret Dowling, nurse manager of the labor and delivery unit, said women in labor who test positive for COVID-19 are still allowed one support person.

"Who wants to have their baby by themselves?" she said.

The staff is vigilant about safety, though. Nurses are assigned to either COVID or non-COVID patients so they aren't going back and forth between the two, and staff members watch each other as they put on – and especially as they take off – their PPE to ensure layers are removed in the correct order.

"Our use of masking, handwashing and PPE has been very effective in preventing hospital transmission of COVID," Soper noted.

Patients and visitors have their parts to play, too.

"We ask patients to wear

masks, whether they're COVID positive or not, if they can, their whole time here," said Katy Decker, nurse manager of the mother-baby unit.

If the mother has COVID, then her support person is asked to remain in the room with her for the entirety of her stay. Nurses will bring food to the room. If she doesn't have COVID, then her support person is free to go to the cafeteria or even home but is asked to consolidate trips so as to limit their exposure to others.

Dowling and Decker noted that women who are about to deliver aren't the only ones in the Pearl Tourville Women's Pavilion. Women who are admitted to the hospital with COVID complications and also happen to be pregnant will be cared for in the pavilion, regardless of how far along in the pregnancy they are. Because a low oxygen level is one of the complications of COVID, the health care team needs to be able to monitor the baby as well as the mother to ensure both are getting enough oxygen. If the woman becomes very ill, she may be transferred to the intensive care unit in Ashley River Tower, which is connected to the women and children's hospital by a skybridge.

At one point in July, Dowling said, the pavilion housed nine COVID

patients. Four were delivering but five had been admitted because of COVID complications. Those five recovered and went home without delivering, she said.

Burnette, who was admitted around 10 a.m. on a Sunday, but didn't deliver until 7 p.m. the following day, said the labor and delivery experience was great.

"The whole team was so nice. Aaron was blown away. He said, 'I watched the whole thing, and I thought I wouldn't. It was so beautiful, and it was nothing like on TV. It's not scary!' The whole experience was so awesome," she said.

Unfortunately, upon delivery, little Noah wasn't breathing well.

"I could tell they were having trouble getting him to cry because they were like, 'Hey buddy, come on. Come on. It's your birthday; let's hear you talk. Come on.' And there was no sound. There was a little here and there," she said.

After a brief goodbye, Noah was whisked away to the stabilization room, and Burnette was taken to the mother-baby unit. Around midnight, the medical team said she was stable enough to visit the NICU in a wheelchair.

"Of course it didn't even look like my baby. He looked like a very sick baby with a million cords and monitors and IVs and breathing tubes and craziness all over him. That was very emotional," she said.

Burnette spent most of her hospital stay, even before she was discharged, in Noah's room and continued to stay there after she was discharged.

If Noah hadn't needed NICU care, the two would have stayed in a room together on the mother-baby floor.

ROOMING PROTOCOLS

Pediatrician Michelle Amaya, M.D., and neonatologist Julie Ross, M.D., developed the hospital protocol for how to handle a newborn whose mother tests positive for COVID-19. Amaya said that the American Academy of Pediatrics initially recommended separating newborns from mothers who test positive. That obviously caused a lot of distress, so the MUSC Children's Health team came up with a three-pronged approach for the regular nursery. For the sick babies requiring care in the NICU, separation continues to be recommended.

Working together, parents and the care team would decide upon the strategy for each family. In the first scenario, recommended by the AAP as the safest option, the baby would be cared for by a nurse in a separate room. In the second, the baby would room-in with the asymptomatic caregiver designated by the mother. The caregiver would need to stay in the room with the newborn and would not be able to go to the mother's room. In the third, the baby would room-in with the mother and her chosen healthy support person. Both mother and support person would wear a mask at all times; wash hands vigilantly, but especially before handling the baby; and roll the bassinet six feet away when not actively caring for the baby.

Most people, Amaya said, chose the third option of caring for the baby in the mother's room while taking safety precautions. The care team also likes this option because it allows them to model safe care techniques for the family to continue using when they go home. And the AAP recently validated that approach, indicating it has so far found no difference in the infection rates of newborns whether they were cared for by a nurse outside the room or by the masked mother using careful handwashing inside the room, Amaya said.

Amaya estimated that the regular nursery has cared for about 30 babies born to COVID-positive women in the last five weeks. Decker said the staff has remained upbeat, even amidst the stress. Just like the rest of the community, staff members are tired of isolation and social distancing. But they're also the ones who must deal with the results of people not abiding by public health guidance.

Dowling and Decker both noted they are constantly updating their staffs on the latest COVID guidelines as researchers learn more about this disease.

"It's an ever-changing atmosphere," Decker said.

As for the Burnette family, they are deep in those newborn days of feed, diaper, sleep and repeat. Noah has regained his birth weight, and his parents are delighted with him.

"I would totally do the whole thing all over again," Burnette said.

DONOR *Continued from Page One*

donor who wasn't compatible. Almost three years ago, MUSC Health launched an internal kidney paired donation program. Initially, living donor coordinator Monica Przybylek, R.N., figured out such matches manually, using spreadsheets and a whiteboard in her office. Now, the team uses a software program, MatchGrid, to figure out matches. The system constantly updates as people rotate on and off the list.

"MatchGrid is constantly evolving. It's very organic. It's almost like Christmas, every time we hit the button," she said.

In this instance, the software created a three-pair match. DiDonato's kidney went to Adwoa Cox, 44, of Greenville. Cox's daughter, Amani Cox, 27, had volunteered to donate to her mom, but because the mother-daughter pair didn't match, Amani's kidney went to Alexis Cook, 23, of Boiling Springs. Kristin Hayes, 41, also of Boiling Springs, had volunteered to donate to Cook, but because they weren't a match, her kidney went to Ladines.

Hayes didn't know Alexis Cook when she saw a Facebook post from Sonya



Photos by Emma Vought

Kidney recipient Adwoa Cox hugs donor Mandy DiDonato.

Cook asking if anyone would donate a kidney to her daughter. Something about the post moved her, and she immediately

volunteered. Though she wasn't a match, she didn't stop there.

"I told them at the beginning I was

with them through the end of this, to get her a kidney," she said.

Alexis Cook became ill with kidney disease at only 12 years old. At one point, she was on dialysis, but then her kidney function improved on its own. It worsened again after she gave birth to her daughter two years ago, and she was placed on the transplant waiting list. She was thrilled when she learned a match had been found for her.

"It was amazing. I was excited. I didn't think it would come that fast," she said.

Przybylek said the internal and external living kidney donor programs each have their unique strengths. Because MUSC Health serves South Carolinians, it seeks first to ensure that patients here get the kidneys they need.

"Our primary focus will always be to transplant our people with our donors and to get as many people off our wait list as possible," she said.

Some patients, however, are especially difficult to match. In that case, it's helpful to have access to a larger pool of potential donors.

"We don't want to limit the options, particularly for our hard-to-match recipients. If we only had an internal exchange, we would be doing them harm," Przybylek said.

It can take time to find the right match, even if you've got junior high school buddies in Florida who are willing to drive up to South Carolina to get tested, as Ladines did. Ladines said he has been humbled by the outpouring of support.

"It has softened me in a way I never would have expected. People are willing to do something like that for you? This is not like, 'Let me borrow a cup of sugar,'" he said.

Ladines' kidneys have slowly been worsening for the past six years. The man who coaches baseball and basketball and leads small prayer groups, in addition to work, has been on dialysis for nine hours a day for more than a year.

"You can only squeeze so much in before you have to get on your machine," he said. "I'm not that guy to just sit around, but I did that for 15 months."

Now, he's ready to go home and praise God.

"There's a power here much bigger than us," he said.



Above photo: Jason Hayes, from left, Kristin Hayes, Glenn Ladines, Kim Ladines, Gage Jackson (standing), Sonya Cook (kneeling), Amani Cox (standing), Alexis Cook, Mandy DiDonato, Adwoa Cox and Charles Cox. Left photo: Recipient Glenn Ladines hugs donor Kristin Hayes.

CHILD *Continued from Page Two*

markers. In particular, his D-dimer, which is a marker of coagulation, was very high. And we worry when levels are that high that you're at very high risk of a serious blood clot."

Cardiologist Andrew Atz, M.D., chairman of pediatrics at the Medical University of South Carolina, said that after receiving remestemcel-L, K.J.'s markers improved dramatically. "He had very abnormal heart function. But the day of his discharge, his heart function had not only improved but was better than normal."

K.J.'s D-dimer came down, too, to Eckard's relief. She called the developments exciting. "I really do think that this product has a potential large impact on MIS-C and perhaps even Kawasaki disease in children." Kawasaki disease, like MIS-C, causes inflammation throughout the body.

But Atz said that at this point, remestemcel-L is not first-line therapy for MIS-C. "This shows very good promise, and I could imagine this becoming over time, with more research, potentially a first-line treatment."

"The first step is making sure it can be delivered safely. That was clearly answered yes in this case, as K.J. slept soundly through both hour-long infusions. Although this initial study is not designed to prove that remestemcel-L results in clinical improvement, we were



Photo by Sarah Pack

K.J. Griffin plays with nurse Amber Ryan the day after receiving his first infusion of remestemcel-L.

able to clearly demonstrate improved heart function and decreased inflammation."

The doctors said it's important to test possible treatments, such as remestemcel-L, for MIS-C as the coronavirus pandemic continues and more children are diagnosed with MIS-C. More than a dozen children in South Carolina have been diagnosed with MIS-C so far, including seven treated at MUSC Shawn Jenkins

Children's Hospital. All survived.

But children in other states have not been as fortunate, Eckard said. "The CDC is reporting 11 deaths from MIS-C so far. As pediatricians, we don't want to see any deaths in children."

One challenge in diagnosing MIS-C is that its symptoms may make it look like the child has a virus, appendicitis, a lymph node problem or something else. Those symptoms include a fever, extreme fatigue, stomach pain, vomiting and diarrhea, like K.J. had.

Kids with MIS-C may also have a rash, bloodshot eyes, swollen lymph nodes and a bright red, bumpy tongue. Often, their families had no idea the children were ever infected with COVID-19 or even around someone with the virus.

K.J. is one of the lucky ones. Thanks to his mom's decision to bring him to Charleston, he's on the mend. On a sunny afternoon in the MUSC Shawn Jenkins Children's Hospital's intensive care unit, two days before he and his mom would go home again, K.J. was a bundle of energy. He played with toy cars as a pair of nurses sat on the floor with him.

"What's your favorite car?" nurse Emily Ray asked.

"Blue," K.J. said emphatically. "The blue one."

His mother sat on a sofa watching. "He's back to his normal self," she said. "It's a huge difference."

She wants other parents to be aware that while MIS-C is rare, it's out there. "Take it seriously."

CANCER *Continued from Page One*

"The overall death rate from colon cancer is decreasing thanks to the use of colonoscopies to screen for it in people 45 and up, but younger people aren't getting screened and aren't recognizing the symptoms for what they are," he said.

"They never imagine they have cancer when they have discomfort, changes in bowel movements or blood in the stool. When you are under the age of 45, people think either this is nothing or this is benign. But if you have any symptoms of bleeding, change in bowel movement, indigestion and discomfort, don't hesitate to ask your doctor, 'Is there a chance I have colon cancer?'"

MUSC Hollings Cancer has a team of more than a dozen experts in gastrointestinal cancers, which includes colon cancer. The youngest colon cancer patient George has seen was just 18 years old.

"We do diagnose people at early ages with colon cancer, and these are not necessarily people with family members who have had colon cancer. These are young, productive males and females



Screenshot by Associated Press

who are being diagnosed with colon cancer and sometimes advanced colon and rectal cancer."

African Americans, like Boseman, have the highest rate of colorectal cancer and are more likely to die from it than any other racial group in the United States, according to the American Cancer

Society. Scientists are studying the reasons for that.

George said Boseman, who played a superhero in "Black Panther," could inspire others in real life to take the threat of colon cancer seriously. "He could be a hero for people with colon cancer, too."

Colon cancer risk factors that can't be changed

- ☐ Age. Colon cancer becomes more common after 50.
- ☐ A history of polyps, which are clumps of cells in the colon that can turn into cancer.
- ☐ Inflammatory bowel disease.
- ☐ A family history of colorectal cancer or precancerous polyps.
- ☐ An inherited condition such as Lynch syndrome that can lead to cancer.

Colon cancer risk factors that people can change

- ❖ A low fiber diet.
- ❖ A sedentary lifestyle.
- ❖ Being overweight.
- ❖ Smoking.
- ❖ Drinking too much alcohol.

College Wrapup

Virtual orientations, ceremonies launch MUSC fall 2020 semester

Staff Report

College of Health Professions

On Aug. 13 and 14, the College of Health Professions welcomed 121 new students to its Master in Health Administration, Master of Science in Cardiovascular Perfusion, Post-Professional Occupational Therapy Doctorate, Master of Science in Health Informatics, Bachelor of Science in Healthcare Studies and Ph.D. in Health and Rehabilitation Science programs. Typically scheduled as a two-day in-person program, this year's new type of student orientation was conducted via multiple online platforms. Leaders from university departments such as Education and Student Life, Public Safety, Department of Diversity, Equity and Inclusion, the Library, the Center for Academic Excellence, and Writing Center collaborated with CHP to offer a full spectrum of online activities designed to provide the best possible launch for our new students. CHP was especially pleased this fall to partner with DaNine Fleming, Ed.D., and her team in providing "Appreciating Diversity and Inclusion," a highly engaging and interactive session that stood out as one of the highlights of the event. Although at a distance, CHP's new student orientation was a great success and allowed all involved the chance to get acquainted and to learn from one another at the start of an exciting and rewarding journey.

College of Nursing

MUSC's College of Nursing transitioned to a virtual platform to welcome new undergraduate and graduate students through online orientations this past June and July. Synchronous sessions, through Blackboard Collaborate, allowed the CON to engage with 99 Accelerated Bachelor of Science in Nursing students (ABSN), 109 Doctor of Nursing Practice students and 11 Ph.D. students from across the country. With a number of graduate students already working the front lines to fight the global pandemic, recordings from orientation allowed these students the opportunity to view all sessions asynchronously, without missing the information and support critical to their success in our programs. Several noted benefits arose from the virtual orientations, including the elimination of travel to campus, benefiting those in our online programs, and the engagement and ability to address questions



Photo by Stephanie Greer

College of Medicine second-year student Garrett Neal, left, distributes a white coat, stethoscope and other materials to medical student Stephen Gannon, far right, during the college's drive-through supply pickup on Aug. 15.

and concerns without disruption to the presentations, through the chat boxes. The college hopes to incorporate online components in the future, since this year was such a success. Nursing faculty and staff also welcomed the new ABSN students in person to the college's only on-campus program on Aug. 28, where they completed N95 fit testing and technology checkoffs and participated in the stethoscope presentations.

College of Medicine

The College of Medicine education team held its drive-through school supply pickup for incoming medical students on Saturday, Aug. 15, from 9 a.m. to noon, in the Horseshoe. The event was fun and festive. New students were presented with their white coats and stethoscopes. College of Medicine virtual orientation was held Aug. 12 to Aug. 14 and the Class of 2024 virtual White Coat Ceremony was held at noon on Aug. 16. Featured were the welcome by College of Medicine Dean Raymond DuBois, M.D., Ph.D.; the Humanism in Medicine address by Aundrea Loftley, M.D., assistant professor in the Department of Medicine; introduction of 180 students (with eight being M.D./Ph.D. students); and recitation of the medical student oath led by Christopher Bunt, M.D., associate dean for student affairs and professionalism. "It's important that medical education marches on," said DuBois. "We are excited to welcome the incoming class of medical students this week. The fact that we have to do things differently at this time in no way diminishes the special nature of this time or the importance of the journey on which these students are embarking. Now more than ever, we are aware of the need for committed, skilled and compassionate health care professionals."

College of Graduate Studies

On behalf of the College of Graduate Studies, Dean Paula Traktman, Ph.D., welcomed 46 graduate students (MS, Ph.D., M.D.-Ph.D.) at an in-person orientation on Monday, Aug. 24, in Baruch Auditorium. Representatives from several campus entities attended to present important information to these students. This included two special lectures (one in person and one virtually) from the college's Class of 2020 Distinguished Graduates – Diana Fulmer, Ph.D., and David Hartmann, M.D., Ph.D. – who spoke about their research while at MUSC and gave personal advice for surviving graduate school. The Liz Chesterman Memorial lecture series honors a former graduate student who was tragically lost due to domestic violence. Those representatives who could not attend prepared virtual presentations and information packets in advance to present to these students as well. It was important that these students meet face to face (or mask to mask) as they will experience the first-year curriculum together and rely on each other for encouragement and support throughout their graduate school journey. Meanwhile, proper measures continue to be taken to protect the health of students, faculty and staff.

College of Dental Medicine

Leaders in the James B. Edwards College of Dental Medicine welcomed 78 new students during its virtual orientation event on Monday, June 1. The D1 Class of 2024 is composed of 78 students –77 D.M.D.s and one D.M.D./Ph.D.

For fall 2020 semester, D1 students will continue

See WRAPUP on page 11

Urban Farm reopens as a safe place to social distance, enjoy nature

For many people, the summer of 2020 has been like no other in recent memory. Public health restrictions caused by the coronavirus pandemic have led to canceled gatherings and eliminated the ability to connect with colleagues and friends in person.

Despite the changes caused by the COVID-19 pandemic, there are still ways to social distance safely, particularly when engaging in outdoor activities. Not only do these outdoor settings provide ample space to social distance safely, but they also tend to promote physical activity and connection with others.

When outdoors, fresh air is constantly moving and dispersing, making it less likely to breathe in enough respiratory droplets containing the virus that causes COVID-19 to become infected. Studies suggest that being outside offers other health benefits, including increased mood, better cognitive function and reduced anxiety, and it might even help boost immunity.

In an effort to provide a safe space for members of the MUSC family and community to enjoy time outdoors, the MUSC Urban Farm has reopened with the following health and safety protocol in place, ensuring that all guests have a safe and health-promoting experience.

MUSC Urban Farm Weekly Work and Learn volunteer sessions

Mondays — 9 a.m. to 12 p.m.

Tuesdays — 3 to 6 p.m.

Wednesdays — 9 a.m. to 12 p.m.

Thursdays — 3 to 6 p.m.

Saturdays — 9 a.m. to 12 p.m.

MUSC Urban Farm health and safety protocol

The MUSC Urban Farm is now open from sunrise to sunset seven days a week. We ask that visitors who did not arrive together maintain social distance of 6 feet apart from each other and wear a mask at all times in the farm. Visitors are asked not to enter the farm if they are experiencing any symptoms of COVID.

The Urban Farm weekly produce stand and Coupon for Crop distribution for MUSC Health care workers will continue to be held each Tuesday from 1 to 2:30 p.m. Please visit the front of the MUSC Urban Farm to receive produce bundles. This is on a first-come, first-served basis. Produce and availability varies by season. Please bring your own reusable bag.

The farm is open to host limited patient groups, MUSC teams and community groups for tours or

MUSC Health & Well-Being

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



educational programs.

Programs must be reserved ahead of time on the MUSC Urban Farm website www.musc.edu/urbanfarm.

“Work and Learn” volunteer sessions are back for fall with weekly volunteer opportunities for one- to three-hour slots to participate in caring for the farm space and to learn how to garden and eat for health. No prior experience is required. Volunteer sessions are limited to 10 people per volunteer opportunity. Volunteers must reserve a spot through the reservation system at least 24 hours prior to the volunteer event at <https://forms.gle/edoGoBe5CJivepueA>.

In order to maintain a safe and open community space, we ask volunteers to abide by health and safety requirements in conjunction with MUSC Health.

Visit the website at www.musc.edu/urbanfarm.



Health Professions' occupational therapy program doctoral students participate in a virtual orientation.



Photos Provided

First-year dental students Thomas Watson, from left, Connor Rammacher and Ashwini Pilla reported for in-person clinical courses.

Humanitas 2021 submissions accepted starting Sept. 1

Humanitas, MUSC's campuswide publication that features poetry, prose, drawings and photography within the realm of health care, is calling all students, faculty, staff, volunteers and members of the MUSC community to submit their original works by Dec. 1 to be considered for inclusion in the 2021 Humanitas (Volume XXV). Visit <https://education.musc.edu/students/cae-and-writing/office-of-humanities/humanitas> for submission guidelines.

experience,” said Philip Hall, dean of the MUSC College of Pharmacy. “They don the white coats together. They sign and recite the Oath of the Pharmacist together. They progress through the curriculum together. Four years from now, they will get hooded together. And they will be MUSC pharmacy alumni together for the rest of their lives.” In honor of this first step in a lifelong journey with MUSC, the white coats were donated by the MUSC College of Pharmacy Alumni Association.

WRAPUP *Continued from Page Ten*

with virtual classes while clinical courses will be held in person, with students following MUSC's COVID-19 and the Center for Disease Control and Prevention's (CDC) strict guidelines. During the week of Aug. 17–21, dental medicine leadership welcomed and addressed students via group WebEx meeting. Dental clinics for the D2, D3 and D4 classes will be open and also

follow CDC guidelines.

College of Pharmacy

The 2020 MUSC College of Pharmacy White Coat Ceremony was an invitation-only affair with families and friends of the incoming Class of 2024 tuning into a livestream virtual event on the college's YouTube channel. Remote and on-site audiences alike were treated to a stirring call by keynote speaker, pharmacy alumnae Erica Hanesworth, Pharm.D., Class of 1997 and 1998. After getting the

students to look at each person sitting around them, she said “These are the people who will become your family for the next four years. You will form some formidable bonds with these people that will last a lifetime.” The ceremony itself reflected those lifelong bonds. The decision to gather the students in person, despite the challenging logistics of social distancing, was made so they could connect to one other during this important induction ritual. “There is a great unity in the pharmacy education

Medical Center named in hospital rankings for consumer loyalty

By HELEN ADAMS
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Leaders at MUSC Health are honored to see MUSC Medical Center appear on the NRC Health Top 100 Consumer Loyalty list for 2020. The rankings recognize health care organizations that have earned exceptional loyalty ratings from the public.

“The concept of loyalty is a direct reflection of trust,” said Patrick J. Cawley, M.D., CEO of MUSC Health and vice president for Health Affairs, University. “We are proud to have earned the NRC Health Consumer Loyalty Award for the second time because it signifies we are constantly living up to one of our core institutional goals — commit to patients and families first.”

NRC Health, formerly the National Research Corporation, conducted its Market Insights survey, the largest database of health care consumer responses in the United States, from April 2019 to March 2020. It contacted

more than 300,000 households across the country to measure people’s engagement with health care organizations. The winners earned high scores on its loyalty index, a composite of seven aspects of consumer loyalty that includes access, engagement and experience.

Helen Hardy, NRC Health’s chief growth officer, said MUSC Medical Center and the other Consumer Award winners are on the forefront of delivering customer-centric care. She called that more important than ever during the pandemic-driven “new normal.”

“We are proud to recognize these industry-leading organizations and the commitments they hold to their patients and consumers, and to improving the complete care journey, now and moving forward,” Hardy said.

But David Zaas, M.D., chief executive officer for MUSC Health’s Charleston division and chief clinical officer for MUSC Health, said this is no time to sit back and celebrate. Not only are we



Photo by Sarah Pack

This marks MUSC Medical Center’s second appearance in the loyalty rankings.

dealing with a pandemic, but MUSC Health is also going through a period of great expansion to reach people across the state who need health care.

“Loyalty and relationships are so critical,” Zaas said. “The growth of

primary care and ambulatory clinics and hospitals and statewide networks really creates the potential for MUSC to achieve an even greater impact on the communities we serve than ever before.”

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