



Photo by Sarah Pack

Some kids are going to school in person in the Lowcountry while others are taking online classes only.

Data on COVID in CCSD stuns doctor who crunched the numbers

BY HELEN ADAMS

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Despite widespread concern that a return to in-person public school would drive a surge in COVID-19 cases in Charleston County, South Carolina, the data tells a very different story.

Allison Eckard, an infectious disease pediatrician at MUSC Children's Health who is working with the school district on pandemic prevention measures, was shocked. "I really



Eckard

was just not in favor of this initially. And now I am a believer. Kids need to be in school, and it's safe."

Her research found that only about 1% of the students and staff in Charleston County Public Schools tested positive for COVID-19 between the start of in-person school on Sept. 8 and winter break, which began Dec. 18. That added up to about 500 total cases out of about 38,000 students and staff. The data does not include charter schools, which were not part of this assessment because they can have different rules than traditional public schools.

Thanks to contact tracing by a team of school nurses trained by the South Carolina Department of Health and Environmental Control, Eckard was also able to get a good idea of how the coronavirus spread

See **DATA** on page 11

What you need to know about getting vaccinated

BY BRYCE DONOVAN

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Most people are either naturally optimistic or pessimistic.

The world is very clear to them. The glass is either half full or half empty.

But when it comes to dealing with the realities of a pandemic, a massive vaccine rollout, still increasing COVID numbers, Danielle Scheurer, M.D., MUSC Health System chief quality officer, doesn't have that luxury. She has to be both rolled into one.

So when it comes to our world's current situation, here's the bad news, according to Scheurer: "People have a nostalgic dream of returning to a pre-COVID world, but that's just not going to happen."



Scheurer

But here's the good news: "Can we return to life as we know it with some minor interruptions? The answer is probably yes. We're just going to have to figure out the safest way to resume in-person activities, but things like travel are still going to be difficult."

Scheurer is in charge of all things vaccine at MUSC. Sounds simple enough on paper, but what does the job really entail?

"My biggest responsibility is trying to match demand, supply and work force," she said. "My role is to maximize all three, but when one gets bottlenecked, I need to jump in and make improvements or

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Employees' design makes procedures safer.

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Patient is 'living proof' of importance of trials.

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AROUND CAMPUS

Derek Brown



Derek Brown has been named the new associate dean of development, College of Medicine. A South Carolina native, Brown comes to MUSC from Vanderbilt University Medical

Center in Nashville, Tennessee, where he served as executive director of development. He has more than 18 years of experience in health system and academic medicine fundraising at several institutions, including Dartmouth-Hitchcock Medical Center and Dartmouth College's Geisel School of Medicine in Hanover, New Hampshire. Previously, he worked at Hope Health in Florence and at the University of South Carolina as director of development for the health sciences. He will begin in his role on Feb. 1.

Kristi L. Helke

Kristie L. Helke, Ph.D., professor in the Department of Comparative Medicine and Division of Laboratory Animal Resources, was named interim chair of the department. She replaces Suzanne Craig, Ph.D., who stepped down from her role as chair in August 2020 and continues to serve as tenured faculty.

Pinar Emecen-Huja



Pinar Emecen-Huja, D.D.S, Ph.D., assistant professor, Department of Stomatology, College of Dental Medicine, was named the new MSD director for the college working as a clinical scholar and research advisor to

dental medicine residents, graduate and predoctoral students. She previously led interprofessional education and training programs at the University of Kentucky.

Jacqueline McGinty



Jacqueline McGinty, Ph.D., professor, Department of Neurosciences and Neuroscience Research and director of the MUSC Neuroscience Institute, is the recipient of the Pioneer Award

presented at the Winter Conference on Brain Research. McGinty has studied the neurobiology of substance use disorders for more than 30 years.

Lori L. McMahon



Lori L. McMahon, Ph.D., was named as the next MUSC vice president for Research. After an extensive search, McMahon was selected to succeed Kathleen T. Brady, M.D., Ph.D. McMahon, who is the Jarman

F. Lowder Professor of Neuroscience and dean of the University of Alabama Birmingham (UAB) Graduate School, has more than 22 years of research experience and leadership in various positions at UAB. At MUSC, she will work directly with the Provost's Office and will oversee the Office of Research and its associate divisions and will devise and lead academic and institutional research strategies across campus. McMahon will report to MUSC July 1.

Reginald Munden



Reginald Munden, M.D., D.M.D., has been named incoming chair of the Department of Radiology and Radiology ICCE chief, following an extensive national search. Munden's career includes leadership roles as interim

chair of the Department of Radiology at The University of Texas M.D. Anderson Cancer Center, and chairman roles at the University of Alabama at Birmingham and Houston Methodist Hospital. He currently as professor and chair and executive director of the Imaging Service Line and vice president of Clinical Operations-Imaging Services at Wake Forest. He is a recognized leader, serving on the board of trustees of the Research and Education Foundation of the Radiological Society of North America.

Munden is also a fellow of the American College of Radiology. Munden will begin his role on April 1.

David E. Rivers



David E. Rivers, assistant professor and director of public information and community outreach, MUSC Library, was honored by the National Environmental Justice Conference Inc. Rivers was

recognized for his leadership, work and dedication educating the public about environmental justice and health disparities in both local and national communities.

MUSC CATALYST news

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Overdoses in overdrive during pandemic

BY HELEN ADAMS

adamshel@musc.edu

When Laura B. describes being revived after one of the two heroin overdoses that landed her in the hospital, it sounds like the scene from the movie “Pulp Fiction” in which Uma Thurman’s character is saved with a shot of adrenaline.

“I remember getting the medicine they give you in your chest. It just like jolts you right out of whatever OD I was in. I was like, ‘What’s up?’ I woke right up, and then I just like threw up, and then I think they had to intubate me soon after,” Laura said.

Laura, now a sober, successful leasing agent who’s into fitness – she even won a bodybuilding contest – struggled with addiction for years. She started using heroin during the grunge era in Portland, Oregon, and didn’t completely stop until an arrest in Charleston, South Carolina, forced her into a long-term recovery program.

Free registration for SCBIO 2021, Feb. 16-17

MUSC employees and students can join life sciences leaders and companies FREE OF CHARGE at SCBIO 2021 – South Carolina Life Sciences’ Virtual Annual Meeting on February 16-17. The two-day event features top national speaker sessions on innovation, partnerships, talent and more – each a fundamental force which drives SC’s growing \$12 billion life sciences industry.

The conference also features a virtual exhibit hall showcasing life sciences organizations from across the country. The outstanding 2020 Life Sciences Organization and Individual of the Year will be announced, and SCBIO will present the 2021 “State of SC’s Life Sciences Industry” address. You can also connect with hundreds of virtual attendees through the Partnering Portal. For information on the SCBIO 2021 virtual meeting, visit <https://www.scbio.org/cpages/annual-conf-2019>.

For registration information, visit <https://web.cvent.com/event/40cd2190-cb90-4174-b8b1-254420315c89/regProcessStep1:7649a295-4873-45c1-934f-dd9e7c7ab770> and select “SCBIO Mission Partner” to gain your free admission.



Image Courtesy of the Drug Enforcement Administration

Synthetic opioids, including fentanyl, pictured here, are the most common drugs involved in overdose deaths in the United States.

“You kind of have to get to that place where you’re like sick and tired. You’re just like, ‘I can’t do this anymore.’ Not everybody makes it.”

As an advisory recently issued recently by the South Carolina Department of Health and Environmental Control shows, an increasing number of people aren’t making it. State health leaders primarily blame powerful synthetic opioids such as illegally-made fentanyl. Other states are dealing with the same situation.

While the increase started in 2019, DHEC says it appears to have accelerated during the pandemic. That rings true to emergency medicine doctor Lindsey Jennings at MUSC Health. The number of people who come to her emergency department after an overdose has gone from about 10 a month to almost double that.

“I don’t think anyone knows for sure why this is happening,” Jennings said. “Certainly, COVID has put strains on people’s everyday lives. It has affected treatment availability in some cases. It’s affected a lot of the social support that many of these patients need such as peer recovery groups. It’s certainly a multi-factorial and a complicated question, but certainly the social isolation and stress of COVID is a contributor to that.”

Laura thinks pandemic-driven job losses are part of the problem, too. “When the job goes away, the beast

takes over,” she said, remembering her own experiences. “Whenever I lost work, that’s when the disease took off, you know? Cause you have no accountability, you don’t have to report to anybody.”

MUSC Health is part of the national effort to try to keep people from dying from drug overdoses. Its Emergency Department has peer recovery specialists, people who have dealt with drug issues themselves, who meet with patients right after an overdose to try to get them into treatment.

It’s also been a national leader in connecting overdose survivors with buprenorphine while they’re still in the Emergency Department. Buprenorphine is a medication that can help people cut back on or quit using opioids.

MUSC Health also gives people at risk of overdosing free Naloxone kits to take home. Naloxone can reverse an opioid overdose. Jennings said it’s important to do everything possible. “Depending on which study you look at, 5 to 10% of patients who come to the ED with an overdose are going to die within a year. We have access to those patients at a very vulnerable time.”

Laura hopes they get the help they need during what can be an isolating time. “With the pandemic, I feel like people are feeling alone.”

MUSC Health expands access to monoclonal antibody treatment

By LESLIE CANTU

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MUSC Health is working to expand access to monoclonal antibody infusions to treat COVID-19 after seeing good results in the first batch of patients in late 2020.

Two monoclonal antibody treatments, bamlanivimab by Eli Lilly and a combination drug by Regeneron, received emergency use authorization from the U.S. Food and Drug Administration in November 2020. Early studies showed that high-risk patients with COVID-19 who received the monoclonal antibodies were less likely to be hospitalized than high-risk patients who received a placebo.

Vanessa Diaz, M.D., medical director for Care Coordination for the MUSC Health Primary Care Integrated Center of Clinical Excellence, said those good results are showing up here, as well. Through the first week of January, 124 patients had received one of the infusions, and only 2.3% of those patients had to be hospitalized.

The treatment is a three-hour process

that involves an IV infusion and then an observation period of one hour in the event of severe side effects. So far, MUSC Health patients have experienced only minor side effects, like dizziness or nausea, Diaz said.



Diaz

Because the treatment is so time-intensive – and, of course, the COVID-positive patients must be isolated from other patients – at this time, the West Ashley drive-through testing site is the only place in Charleston where MUSC Health is offering the monoclonal antibodies. However, MUSC Health Florence has also been offering the treatment – infusing more than 154 patients in December and January – and MUSC Health Lancaster has started offering the treatment.

“I think we’re going to keep looking at strategies to improve our ability to provide



Photo by Sarah Pack

MUSC Health is seeing good results from monoclonal antibody treatments for COVID-19, but the treatment must be started within 10 days of symptom onset, so early testing is key.

the medication to the community,” Diaz said.

MUSC Health now has a website that community health providers can use to refer patients who they think qualify for the treatment.

The health system has also started receiving more doses. At first, the West Ashley site could treat four patients per day, but it now can treat 14 patients per day.

Diaz emphasized the time element in this treatment. The monoclonal antibodies must be infused within 10 days of symptom onset – and preferably even sooner. Because people might wait a few days after feeling ill to get tested, and then test results may take a few days to return, otherwise eligible patients are at risk of missing the 10-day window in which to be treated. It’s critical that people get tested as soon as they begin to feel symptoms, she said.

People who are eligible for the monoclonal antibody treatment include people over the age of 65, people over the age of 55 with underlying conditions like

cardiovascular disease, adults with chronic kidney disease or diabetes or people with a body mass index greater than 35.

The treatment cannot be used for people once they’re hospitalized. However, in an update to the guidelines, people who have been hospitalized for observation only and did not receive oxygen are now eligible for the monoclonal antibodies, Diaz said. Diaz said they’re seeing good results across the board, regardless of race, age, gender or comorbidities.

However, people who receive this treatment should delay getting a COVID-19 vaccine for at least 90 days. The lab-created monoclonal antibodies will fight the existing COVID-19 infection, but they won’t prompt the body to create its own antibodies, and their presence in the bloodstream could dampen the body’s response to the vaccine.

“We do think that having the outside antibodies would attenuate your response to the vaccine, so you wouldn’t get as good an immunity from it,” she said.

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MEET PHYLLIS



Phyllis Watson

Department; Year

Respiratory, Women's Health; 31 years

How are you changing what's possible at MUSC

I'm adaptable and dependable to patients and staff

Family, pets and their names

Husband, Buster; daughter, Emily; dogs, Rocky and Buddy and a cat, Chicken

Favorite fall sports team

Green Bay Packers (I'm from Upper Michigan)

Favorite winter memory

Snowmobiling

What food is a must have in your pantry

Grits and grape jelly

Something you've done at work that you're proud of

As a respiratory therapist, I've taken care of MUSC's sickest and smallest babies.

Famous quote

"Our lives begin to end the day we become silent about things that matter."

—Martin Luther King Jr.

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Jacketta R. Cobbs, PhD, MPH
MPH Program Manager

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Guardian Needle, MUSC Health clinicians' safer neuromonitoring needle design, debuts in OR

BY LESLIE CANTU

cantul@musc.edu

A new product conceived of by MUSC Health clinicians, developed by ZIAN engineers and now manufactured and sold by RhythmLink, a South Carolina medical device company, will make the operating room a safer place for health care team members.

MUSC Health used the Guardian Needle for the first time during an operation on Dec. 16. For co-inventor Jessica Barley, Ph.D., it was a moment nearly a decade in the making.

Barley is a neurophysiologist. She assists in vascular, cardiac, orthopedic, urological and neurosurgeries,

monitoring the patient's neural functioning to provide real-time information as the surgeon makes decisions about how to conduct a high-risk surgical procedure while avoiding permanent neural damage.

To do this, she places as many as 40 tiny, super-sharp needle electrodes into the patient, each of which is attached to a long wire that connects to the monitoring machine.

Intraoperative neuromonitoring provides valuable information to safeguard the patient's neurological functions, but it's not without risk to the team in the operating room. Traditional needles are held in place by tape, and they can pop out of position and



Photos by Sarah Pack

Neurosurgeon Bruce Frankel, left, looks at how the Guardian Needle is secured to the patient while neurophysiologist Jessica Barley, co-inventor, attaches another.



Barley demonstrates how the needle protrudes only when she pops it out of its protective sheath, which comes with its own adhesive. Until now, the practice has been to use bare needles that can become dislodged and stick team members during surgery.

stick team members as they maneuver themselves or the patient during surgery.

Barley said that in addition to herself, she's seen surgeons, nurses, anesthesiologists, patient care techs, X-ray techs and members of her own team get stuck. When people get stuck, they have to report the incident and go to Employee Health Services, and they can spend months waiting to see if a bloodborne disease develops. Operating room nurse Phyllis O'neal, R.N., for instance, remembers one case where she learned after she'd been stuck that the patient had Hepatitis C, a bloodborne disease that can cause cirrhosis and liver cancer.

But it was one case in particular that got Barley thinking about the design of the needles she uses. She was monitoring a little girl during surgery when her instrumentation showed the child was in trouble. Barley alerted the

surgical team to the patient's distress, and shortly thereafter the child's vital signs plummeted. As the care team members rushed forward to begin chest compressions, Barley tried to race ahead of them to remove all of her needles before anyone got hurt.

"For me, that was such a terrible experience," she said. She figured that someone, somewhere, must be working to improve the design of the neuromonitoring needles. But no one was, as far as she could tell. So Barley and neurologist Jonathan Edwards, M.D., chief of the Integrated Center of Clinical Excellence in Neurosciences, began working together to come up with a solution.

Their idea was a needle that would protrude only when inserted into the patient and that would automatically return into a protective cover when

*See **NEEDLE** on page 12*



MUSC Health
Medical University of South Carolina

HEALTH POLICY
symposium

Changing What's Possible
Jan 2021

Politics and Policy in the New Year

Please join us at the next MUSC Health Policy Symposium for a breakdown of the November elections and health policy outlook for the new year.

This virtual event will feature Christian Soura, executive vice president of the South Carolina Hospital Association. Soura is an expert on federal and state health care financing and policy, having previously served as director of the South Carolina Department of Health and Human Services, president of the National Association of Medicaid Directors and deputy chief of staff to Gov. Nikki Haley. The symposium will offer insights into potential payment reform and the future of COVID-19 policies, including temporary telehealth flexibilities and stimulus relief.

This is Soura's second time serving as our symposium speaker, and we look forward to hosting a dialogue on recent changes at the State House and White House and on Capitol Hill, and the projected impact on MUSC.

Registration is required: <https://redcap.link/MUSCPolicy>

With questions, contact Allie Dodd- doddal@musc.edu.



SPEAKER:
Christian Soura
Executive Vice President,
S.C. Hospital Association

MUSC designates this live activity for a maximum of 1.0 AMA PRA Category 1 Credit. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Thursday, January 28, 2021 | 2:00 - 3:00 p.m

To register: <https://redcap.link/MUSCPolicy>

Changing What's Possible

Laryngeal cancer survivor credits Phase 1 trial for lifesaving results

BY KELSEY HUDNALL

adamshel@musc.edu

When Tony Pesavento was diagnosed with laryngeal cancer in 2015, he underwent what felt like “every treatment under the sun” to stop the progression of the disease and to improve his symptoms. After an unsuccessful attempt to cut away the cancer using endoscopic laser surgery, Pesavento underwent six weeks of radiation before having surgery at MUSC Hollings Cancer Center to remove his larynx – only to find that the cancer had spread to his lymph nodes.

Following an additional six weeks of radiation and chemotherapy, Pesavento was diagnosed with stage 4 metastatic disease. That’s when he was approached about enrolling in a Phase I clinical trial testing a new drug combination for advanced cancers – a trial he credits with saving his life.

“I’m living proof that if cancer research didn’t exist, I probably wouldn’t be here,” said Pesavento, who completed the trial in early 2019 and has been cancer-free ever since. “That’s why I believe it’s important to continue conducting research to keep discovering more modernized ways to combat cancer and any other number of diseases.”

Led by site primary investigator John Kaczmar, M.D., the trial aimed to evaluate the safety, tolerability and clinical benefit of a novel immunotherapy drug called



Kaczmar

Cabiralizumab when used in combination with the drug nivolumab, which is a standard treatment used to treat a variety of cancers. Cabiralizumab has not yet been approved by the U.S. Food and Drug Administration, meaning it’s only available to patients involved in clinical trials.

The study enrolled patients with

“I’m living proof that if cancer research didn’t exist, I probably wouldn’t be here. That’s why I believe it’s important to continue conducting research to keep discovering more modernized ways to combat cancer and any other number of diseases.”

Tony Pesavento

advanced solid tumors of the lung, head, neck, pancreas, ovaries, kidneys, brain and spine who could not be treated with standard treatment courses. Hollings was one of 39 sites across the country to make the trial available to patients.

Data from the trial led to the further development of Cabiralizumab for pancreatic cancer but not in larynx cancers, said Kaczmar, but the benefits Pesavento received from his participation are real and made it worth the effort.

“Tony is a true fighter. He battled multiple recurrences of larynx cancer that despite aggressive treatments metastasized. In the face of this, he had the bravery to proceed with a Phase I trial featuring a novel immunotherapy combination. Remarkably, he had a complete response, finished two years of treatment and has now been off therapy and is still without any signs of cancer,” said Kaczmar, who added that finding improved treatments for advanced laryngeal cancer is a great need.

“Not all clinical trials prove successful, but over time, they do help broaden and improve treatment options as we seek to further extend the time our patients have with their loved ones.”

Pesavento served more than 24 years with the U.S. Marine Corps, including a combat tour during the Vietnam War, so he’s no stranger to facing battles head on. He admits that he was hesitant at first to be placed on an investigational

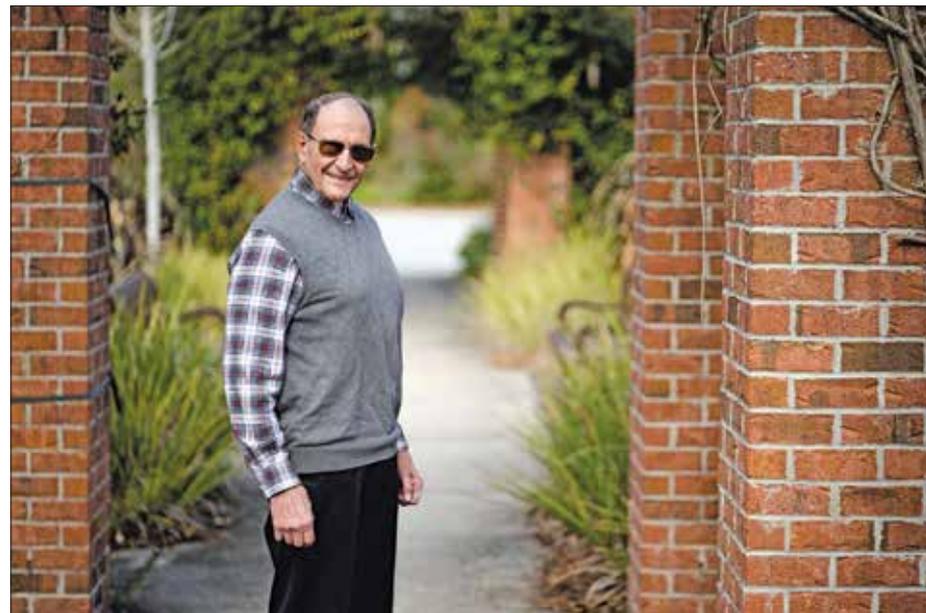


Photo by Marquel Coaxum

Tony Pesavento has been cancer-free since completing a clinical trial in early 2019 and is living proof of the importance of cancer research and finding new treatments.

treatment, but his reliance on his faith helped him to remain optimistic.

“I’m Catholic, and I believe in prayer. Saint Peregrine is the patron saint of people with cancer, and a part of a prayer to him says: ‘For many years you bore having cancer with no earthly power being able to assist you, and then you sought God’s help, and you were favored with a vision of Jesus coming off of His cross to heal you,’” said Pesavento. “I was saying that prayer one night, and I bumped the table that had a Crucifix on it, and the corpus fell off. I knew then that I would be OK.”

He has also leaned on his sense of humor and the support of his wife of 50 years, Pam, to help him cope. She drove him back and forth from their home in Beaufort, South Carolina, to Charleston for treatment every two weeks for two years while he was in the trial. The couple met and married while Pesavento was serving as a lieutenant at Parris Island and while Pam was a schoolteacher in Beaufort.

“She’s my rock,” said Pesavento.

Along with his wife, Pesavento is thankful for the staff at Hollings for taking every step they could to give him the best outcomes following his late-stage

diagnosis. He’s especially grateful, he said, for his oncologists, Kaczmar, Eric Lentsch, M.D., and Anand K. Sharma, M.D.; his speech-language pathologist Julie Blair; his otolaryngologist Ashli O’Rourke, M.D.; and the staff in the Hollings Clinical Trials Office who helped to coordinate his care. He also said that the American Cancer Society’s Hope Lodge and its staff provided an invaluable service.

“I can’t say anything negative about anybody. From the receptionists to the nurses, the guy who brought around snacks, the volunteers who brought in the support dogs – everybody was just great. I’ve tried to show my appreciation with cards and candy, but I know that I will never be able to thank them enough,” said Pesavento. “I’d like to go back and visit them and let them see me now, but current circumstances preclude that, at least for now.”

While he doesn’t have any specific plans for 2021, he’s looking forward to the day when the COVID-19 pandemic is a thing of the past so he can properly celebrate how great he’s feeling now.

“But you know what they say,” said Pesavento. “Men make plans and God laughs.”

Survey gives Charlestonians chance to help their city cope with COVID-19

BY HELEN ADAMS

adamshel@musc.edu

As South Carolina racks up one of the highest COVID-19 case rates in the country per capita, MUSC is encouraging people in Charleston to take a small step that could help the city in its efforts to bring the virus under control.

So far, almost 100 citizens have agreed to take a survey that gives them a chance to express their views about COVID-19, vaccines, mask use and more. Michael Sweat, Ph.D., faculty director of the Center for Global Health at MUSC, is leading the survey.

“It’s a real study, it’s serious,” he’s been telling people who have called him after receiving an invitation in the mail to participate. “It’s not a scam.”

Instead, it’s a study that’s measuring people’s attitudes about COVID-19 to help health and government leaders

understand them. “There are a lot of vaccine concerns, among particularly African-Americans. We’ll get a much better idea about those concerns,” Sweat said.

“It’s useful to know who is going to show up when you offer the vaccine. That could inform vaccine strategies as we go forward. You might want to really prioritize some groups. If there’s a lot of reticence, then you need to get out and work to assuage their concerns or make it easier for them. You want to reduce the barriers and increase the demand.”

The survey also gives participants the chance to take a free antibody test so they can find out if they’ve been exposed to the coronavirus that causes COVID-19 – and lets researchers see where the virus is spreading, even in people who don’t have any symptoms. That will help leaders prioritize vaccine distribution.

“Very large proportions of people



Photo by Sarah Pack

Nurse Tammy Justice Alberts prepares a COVID-19 vaccine.

don’t get too sick or sick at all. And so they don’t get counted. This is a way for us to get a relatively accurate estimate of how many people really have gotten infected and their demographics. We can then compare what we get in this random sample to what we see in the testing data or the hospital data. That will give us a feel for who’s asymptomatic. It’s really valuable for public health

purposes,” Sweat said.

His goal is to get more than 400 people to agree to participate. The MUSC research team is sending recruitment documents, including a letter from the mayor of Charleston supporting the study, to a randomly selected sample of people. The survey is invitation only – you can’t just volunteer for it.

The research comes at a critical time in the pandemic, with the virus surging as vaccine distribution begins. “There are several counties in South Carolina where there are no more ICU beds,” Sweat said.

That’s not the case in the Charleston area, but the number of COVID-19 patients is increasing. Sweat said taking part in the survey, which includes a \$25 Amazon gift card as a thank you, is a way for people to contribute to the public good. “This will give us another way to cope with the pandemic.”

Upcoming MUSC Diversity, Equity and Inclusion Training

The MUSC Office of Diversity, Equity and Inclusion is offering virtual training opportunities in January 2021.

☐ Appreciating Diverse Experiences – 9 a.m. to 1 p.m., Saturday, Jan. 23 (4 hours credit)

To register, refer to the MyQuest D&I training catalog or email Paula Sutton at suttonp@musc.edu.

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- Rev. Dr. Martin Luther King Jr.

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MUSC Black, Hispanic/Latino faculty urge communities of color to take COVID vaccine

Staff Report

Given the devastating impact of the COVID-19 virus on communities of color, the MUSC Black Faculty Group and the MUSC Hispanic/Latino faculty members encourage Blacks and Hispanics/Latinos in South Carolina and across the nation to take the COVID-19 vaccine as soon as they can schedule an appointment.

“Our lives depend on it,” said Marvella E. Ford, Ph.D., professor in the Department of Public Health Sciences and director of the Population Sciences and Cancer Disparities at MUSC Hollings Cancer Center. A leader of the MUSC BFG for nearly 16 years, Ford stated the group’s perspective, noting that “The vaccine is needed in these communities for three reasons. First, COVID-19 has caused more deaths in the United States than in any other country in the world. Second, COVID-19 infection rates are much higher among Blacks and Hispanics/Latinos than among Whites. Third, COVID-19 death rates among Blacks are double in comparison to the death rates among Whites.”

Due to many systemic stressors such as employment issues, lack of health insurance, racism and discrimination, many Blacks and Hispanics/Latinos were in poorer health than Whites long before the pandemic began. Unfortunately, chronic health conditions, like diabetes and heart disease, place Blacks and Hispanics/Latinos at greater risk of experiencing more severe COVID-19 symptoms once infected.

“The vaccine gives us a measure of hope,” said James H. Tolley, M.D., Assistant Professor Emeritus, Department of Emergency Medicine. “This hope translates into children being raised by their parents instead

of other family members or the foster care system, grandparents living to see their grandchildren graduating, parents being present during their children’s weddings and uncles and aunts being available to provide advice and guidance to their nieces and nephews.” A former Emergency Department physician, Tolley has been part of the MUSC community for more than 30 years.

The COVID-19 vaccines that are now available were developed with tens of thousands of volunteers who participated in clinical trials across the nation and around the world. Many of the trial participants were racially and ethnically diverse, and the trials used the most sophisticated and scientifically rigorous methodologies. The vaccines are safe and highly effective at protecting against the most severe consequences of the virus.

COVID-19 vaccines, like all vaccines, undergo very rigorous testing and safety assessments before the federal Food and Drug Administration approves their use. Close safety monitoring continues even after a vaccine obtains FDA approval.

“The stakes are high,” Ford said. “If there is not significant uptake of the vaccine in our communities, members of these communities will continue to die in large numbers from this deadly disease. The people who are dying represent a tremendous loss to their families, their communities and to the United States.”

Established in 2004, the MUSC Black Faculty Group includes educators, administrators, health care providers, researchers and staff members who work in all areas of the institution. MUSC Hispanic/Latino faculty members embrace a similar broad variety of members who serve in education, research and health care careers. The two groups have created a professional network that address and support a variety of community initiatives.



Photo Provided

Dr. Mileka Gilbert, a pediatric rheumatologist, is one of the MUSC Black faculty members who took the COVID-19 vaccine to protect herself as well as her patients, family and community. MUSC Black and Hispanic/Latino health care, education and research professionals urge communities of color to take the vaccine. #backthevaxMUSC

Top 10 reasons we ask people of color to get the COVID-19

1. People of color are at higher risk of getting COVID-19, going to the hospital, and dying from COVID-19.
2. In clinical trials with thousands of people of color, COVID-19 vaccines reduced the risk of getting COVID-19 and reduced getting a severe case of it.
3. The vaccines have been proved scientifically to be up to 95% effective against the virus.
4. COVID-19 vaccines are safe for people of color. More than 10,000 people of color have received the vaccines.
5. Many measures are in place to make sure the COVID-19 vaccines continue to be safe for people of color.
6. Doctors and nurses of color at MUSC Health and across the U.S. believe that the COVID-19 vaccine is safe and effective.
7. You cannot get COVID-19 from the COVID-19 vaccines.
8. Side effects can occur after getting a COVID-19 vaccine. These side effects are often mild. They often go away in a few days.
9. Getting a COVID-19 vaccine will help you to protect yourself, your family and your community from the harmful effects of COVID-19.
10. MUSC Health and other health systems across the country have pledged to give out the COVID-19 vaccine fairly and equitably.

Participate in 2021 socially distant Lowcountry Heart Walk on Feb. 27

MUSC's Enterprisewide employee well-being program, Imagine U, invites you to join the Imagine U team as we walk to fight against heart disease and stroke in the 2021 Lowcountry Heart Walk on Feb. 27 with the "Walk Where You Are" Move More challenge!

About the 2021 Lowcountry Heart Walk

This year's Heart Walk will be the biggest ever with a "walk where you are approach." While you celebrate with us, you'll also join 1 million walkers from across the nation as we all move as one while remaining safe and socially distant amid the COVID-19 pandemic.

MUSC is dedicated to eradicating cardiovascular disease. Thanks to the funds raised and the volunteer advocates recruited through Heart Walk each year, the American Heart Association is able to make an incredible impact in our community.

Take a moment to consider your impact. This year's donations will help to

fast-track COVID-19 research and train front-line workers while we continue the fight against heart disease and stroke.

When you walk, you will:

- Get moving with our new activity tracker and movement challenges on our mobile app.
- Get connected – it's now easier than ever to connect, share and raise critical funds.
- Get rewarded – earn Heart Walk gear like caps, shirts, jackets and more.
- Get inspired – get creative, move wherever you are, any way you want – include your family, too.

The Lowcountry Heart Walk is the American Heart Association's mission in action. This annual event promotes physical activity while raising awareness about heart disease and stroke. Most importantly, this nationwide celebration raises funds for lifesaving research and science that enables millions of Americans to live longer and healthier lives, including many lives within our

MUSC community, especially as we face the COVID-19 pandemic.

This year, the MUSC Office of Health Promotion would like to challenge you and your colleagues to join the Imagine U team. By participating with and training alongside other Imagine U team members, you will not only be actively improving your physical and mental well-being, and reducing your own risk for heart disease and stroke, but you will also earn 25 Imagine U points by completing the "2021 Heart Walk Imagine U Challenge," making you eligible to win a variety of Imagine U prizes and incentives.

Furthermore, this year's Heart Walk provides participants with access to the Move More app that serves as an activity tracker that can be utilized to motivate you and your teammates throughout the month of February, as we celebrate Heart Month, while remaining safe and socially

MUSC Health & Well-Being

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



distant.

To complete this Imagine U challenge and earn 25 points, simply register or join a team within your department or join the Imagine U Heart Walk team and participate in the walk on Feb. 29.

Invite your family, friends and colleagues to walk to make an even bigger impact.

When: Feb. 27

Check-in: 9 a.m.

Start time: 9 a.m.

Where: Walk where you are.

See **WALK** on page 11

VACCINE *Continued from Page One*

adjustments."

For instance, for this week, MUSC requested 20,000 doses of the Pfizer vaccine from the South Carolina Department of Health and Environmental Control. The university normally receives its weekly shipments on Mondays or Tuesdays, and just days before its anticipated arrival, the university learned it would only be getting 7,000 doses.

"I'm playing vaccine whack-a-mole," she said. "When things like that change, it obviously changes how many people can be seen and how many staff are needed to administer those doses." According to Scheurer, this is the fifth week of vaccine administration at MUSC, and each week the amount received has been different.

"That makes it tough," she said. "Three of the five weeks, we got all we asked for, one we got 80% and this time we got 30%. If this is the amount we're going to be getting going forward, we may have to start canceling on patients. And that's the worst thing I can possibly

think of," she said.

With the vaccine landscape changing almost daily, each week

going forward, we will check in with Scheurer and ask her the most pertinent questions that are hanging in the balance.

Q. What phase of vaccination are we currently in, and who does that include?

A. We are calling it 1a – health care providers and workers in health care settings – though at the direction of the governor, we have now lumped people ages 70 and older in that group.

Q. What is the experience of receiving the vaccine like?

A. It's quick, and the shot itself is relatively painless. Then, after you get the dose, we recommend you stay 15 minutes for monitoring. That's basically looking for any sort of allergic reaction. If nothing happens in that time, you're basically good to go.

Q. How do those eligible people sign up?

A. They can simply visit <https://muschealth.org/vaccine-1a>. Then all they need is proof of employment in health care or proof of age.

Q. How many people are we vaccinating a day?

A. It started at around 1,000, but right now, we're up to about 4,000. However, if the amount of vaccine we receive each week doesn't increase, that will mean we've got enough for about two days until the following week's delivery.

Q. What can people expect after they are vaccinated?

A. Some people might feel less than perfect. The second dose symptoms are typically more intense, which isn't unusual for two-step vaccines. We've found that about 20% of people had notable side effects after first dose and 80% after the second. I tell people to plan on not feeling good the next day or two after they get a dose. Not necessarily "missing work bad," but they're not going to feel great. But I also tell them, it's a hell of a lot better than getting COVID.

Q. Does the new more rapidly spreading variant change the efficacy of the vaccine?

A. Coronaviruses are notorious for mutations. So that COVID-19 would do this is no real surprise. Right now, the vaccine works just as well on this variant, so there's no worry there. However, the question we as health care providers have to keep an eye on down the road is, "Do these mutations eventually affect the behavior of the virus such that it renders vaccines ineffective?" But here's some more good news: The way the Moderna and Pfizer vaccines are made, they target the spike protein, and that's the part that's mutating. So synthesizing a new version of the vaccine should be something we're able to do relatively quickly.

Have a question you'd like answered? Email it to donovanb@musc.edu with the subject line "Vaccine Q."

DATA *Continued from Page One*

when it did crop up.

“There have only been a handful of cases that may have been transmitted within the schools and within the classroom. There have been cases, there’s no doubt, but the majority of them have been acquired outside of the classroom. The ones that did happen inside the classroom most often involved a teacher giving it to a teacher or a teacher giving it to a student. And I have no examples of students giving it to teachers – the thing that everybody was so worried about,” Eckard said.

“I would put a little asterisk by that and say that yes, there is a possibility that there’s an asymptomatic student who has given it to a teacher and we don’t really know, because I don’t know the source of infection in every case. But there’s no evidence of that. In most cases, the infection could be traced to a family member or a friend where they had spent time together outside of school. In some cases, sports activities, carpooling, and social gatherings were identified as the sources of infection.”

The success of the Charleston County School District wasn’t just luck, Eckard said. The district worked closely with the South Carolina Department of Health and Environmental Control and MUSC Health’s Back2Business team, which was

created to help organizations operate as safely as possible during the pandemic.

Eckard serves as the team’s medical director for schools. She said its experts took a series of steps, including:

- ❑ Assessing schools’ physical spaces and workflow.
- ❑ Giving the district “playbooks” of specific information on how to minimize the risk of COVID-19.
- ❑ Giving schools checklists so teachers could do classroom assessments with guidance on how to make them safer.
- ❑ Hosting multiple live-streamed discussions for families and community leaders to get feedback, address concerns and reinforce safety precautions.
- ❑ Recommending postponing activities such as basketball that could help the virus spread.

The Back2Business team and the district also stayed nimble, adjusting as needed. When school nurses reported that some families weren’t getting their kids tested for COVID-19 because of issues like transportation and slow turnaround times, MUSC Health set up a system for them to do saliva tests on the kids at school. And when vaccines became available for health care workers, the school nurses were able to come on a weekend to MUSC Health and get vaccinated.

Jeff Borowy, chief operating officer for the district, said school leaders

are pleased that they’ve been able to have students on campus five days a week since the start of the school year. “The success is the result of a clearly layered protective protocol that begins with our teachers and students who have practiced and enforced the safety measures, including face coverings throughout the day, social distancing, handwashing and learning behind plexiglass. The protocols were established and adjusted throughout the year with significant support from both the MUSC Back2Business team and the South Carolina Department of Health and Environmental Control.”

He noted the hard work that went into that. “Our facilities management staff designed and installed more than 60 miles of plexiglass for all general education classrooms and personal sneeze guards for all teachers, maximized effectiveness of school ventilations systems, increased cleaning and disinfection and acquired and distributed more than 200,000 items of personal protective equipment.”

Eckard’s assessment, which shows just how well those measures have worked so far, comes as the South Carolina Education Oversight Committee warns of a “COVID slide” in student achievement. Emergency remote learning left some kids struggling to participate due to a lack of supervision, technology

or internet access.

Eckard said her research also found that in the Charleston County School District, the kids whose families chose online learning over in-person tended to come from what she called disadvantaged groups. “Those are children who are already at risk for educational and health disparities. And so that makes it even more important to get them back into school.”

She said other issues affecting kids have cropped up during the pandemic as well. At-home learning keeps teachers from being able to spot signs of abuse and neglect, so mistreatment may go unchecked for longer than in the past. And that’s not all. “Gun violence and the number of children with suicidal thoughts have also increased because of a lack of supervision and the social isolation that occurs when kids aren’t in school,” Eckard said.

Charleston County’s success in returning to in-person school has raised interest in at least two other Lowcountry school districts that are currently all-virtual or using hybrid models. “It’s so compelling that the schools are safe if you put all the mitigation strategies in place, and the risk to the students is so much higher if they’re not in school,” Eckard said.

WALK *Continued from Page Ten*

Please note: You can complete this challenge by registering and walking with any Heart Walk team. All care team members are welcome to join the Imagine U team but are not required to walk on the Imagine U team to complete this challenge.

The Lowcountry Heart Walk is an event for every care team member and their family members, regardless of physical fitness level or experience. Simply take the first step and sign up today and join us virtually to walk on Feb. 27.

For more information about Imagine U or the participation on the 2020 Lowcountry Heart Walk Imagine U team, visit www.musc.edu/iu or email daporek@musc.edu.

American Heart Association Heart Walk

MOVE MORE CHALLENGE

We could all use some help to keep moving and stay in touch. The Move More Challenge will get you moving while protecting the hearts you love.

Start moving **Reduce stress** **Connect teams** **Raise Breasting funds**

HOW IT WORKS

Ready Download or update your Heart Walk app and get registered.

Go! You've got 4 weeks to log your minutes. See if you can reach 150 minutes a week!

Go Any way you move, count! You can walk, dance or even vacuum to stay moving.

Celebrate Keep an eye on your leaderboard. Top movers and fundraisers will be recognized on Heart Walk day!

Raise funds AND raise heartbeats Simply download the Heart Walk app and GO!

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web.musc.edu/onemusc

NEEDLE *Continued from Page Six*

removed, regardless of whether removal was accidental or purposeful.

They connected with the Zucker Institute for Applied Neurosciences, or ZIAN, a medical technology accelerator embedded in MUSC.

In addition to being able to quickly raise and deploy hundreds of thousands of dollars of research and development funding, ZIAN has the engineering, intellectual property and business expertise to help clinicians' ideas become reality, said Mark Semler, CEO of ZIAN.

The ZIAN team could spend the time developing prototypes of the Guardian Needle, figuring out which adhesive would work best and which material had the best spring rate, while also handling the intellectual property aspects and, ultimately, finding a partner to commercialize the resulting product. In a nice bit of state synchronicity, the best industry partner turned out to be just up the road in Columbia.

"We make medical devices that help connect patients to machines to either

record or elicit physiologic information from the patient to help caregivers figure out what's going on," said Shawn Regan, CEO and co-founder of RhythmLink International. The company's products focus on monitoring of the brain, spinal cord and the nerves that branch out from the spinal cord.

Regan himself has experience with getting stuck in the operating room. Earlier in his career, he performed intraoperative neuromonitoring, so he's familiar with the aggravating aftermath of being stuck — the requisite paperwork and ensuing anxiety. In one case, Regan had to go the emergency room and take several prophylactic drugs after he was stuck and the patient turned out to have several bloodborne diseases.

"Thankfully everything was fine, but it wasn't fun," he said.

His company had already started looking into ways to improve the neuromonitoring needles when it began talks with ZIAN and decided the Guardian Needle design was the way to go.

"It made sense," Regan said. "This is

the group we want to work with. They've got this really great idea, they've got a nice design, they have a good patent. And it turns out, they happen to be an hour and a half down the road from us, which was a wonderful coincidence and made it really nice and really easy for us to work with them."

RhythmLink was also Barley's top choice for an industry partner. She was impressed from the beginning with the quality of their products and the integrity they demonstrated in every meeting.

ZIAN and RhythmLink signed an agreement in 2017. Over the next few years, the two groups worked on design enhancements and regulatory approval. The U.S. Food and Drug Administration approved the Guardian Needle in May, and RhythmLink began production in the fall.

In December, Barley finally got to use the product that was her brainchild. During the surgery, neurosurgeon Bruce Frankel, M.D., successfully removed an almost 7-centimeter tumor from a 70-year-old man's spine. He was then able to reconstruct the patient's spine

using screws, rods and a cage inserted in front of the spinal cord.

"This delicate work cannot be done safely without neuromonitoring. To have the confidence of an excellent monitoring team, using and developing cutting edge technology here at MUSC, is a source of pride for me. This technology not only allows for superb patient safety, but now an improved security for the entire team including operating room staff," Frankel said.

In notes she wrote up for a joint appearance with Regan at a SCBIO virtual conference in September, Barley reflected on the long journey from idea to reality.

"Time is a tricky thing, in that in some ways it drags and in others it flies," she wrote. "There were many times I felt frustrated and discouraged that the process was not moving faster (patience is no virtue of mine). But then I think of all the people that have spent their lifetimes not seeing their ideas come to life, and I am in awe of how quickly this did for me, and I am incredibly grateful."

HONORING HEROES

DR. MARTIN LUTHER KING, Jr. 1929 - 1968
CONGRESSMAN JOHN LEWIS 1940 - 2020

The time is always right to do what is right.
MLK, Jr.

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