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COVID-19 numbers plateau as threat of viral variant looms

By Helen Adams

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As COVID-19 case numbers plateau in the Charleston area, the leader of the MUSC COVID-19 Epidemiology Intelligence Project warns that fasterspreading variants are likely to cause new problems.

"Reinforce your prevention behaviors," said Michael Sweat, Ph.D. "Now is the time to worry."

Those behaviors include wearing a mask, staying at least six feet away from people who don't live with you and avoiding crowds.

The Centers for Disease Control and Prevention recently warned that a variant first seen in the United Kingdom

could become the dominant strain in the United States as soon as March, causing a crush of new cases.

"I would like to be optimistic, but I think it's likely that we will not evade it. It's out there, and it spreads very quickly by definition," Sweat said.

Different variants have cropped up in other countries, including South Africa. "Mutations are occurring spontaneously in multiple locations independently. So the virus is very good at mutating," Sweat said. "It's just natural selection. It happens with all viruses."

Some of those mutations may not just help the virus spread more quickly, Sweat said – they may also make it more dangerous. "One of the lead epidemiologists on the White House task force came out today and said he's looked at the data on the U.K. variant, and

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Photo by Marquel Coaxum

Despite an unexpected brain cancer diagnosis, Claudia Salazar is pursuing a doctorate at MUSC to help to achieve her dream of making a difference in health care and education for minorities and underserved populations.

National Cancer Prevention Awareness Month

Cancer patient makes surprising bucket list as her fate hangs in limbo

BY DAWN BRAZELL

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M any thoughts went through Claudia Salazar's head as she slid into the tube and listened to the metallic clicking and buzzing of the MRI machine.

As a research assistant, Salazar's goal was to experience what it was like personally to get an MRI so she would be better able to describe the experience and reassure the teens who would be having brain scans as part of a study being done at MUSC. It never occurred to her that something might show up on the scan. When she started receiving persistent calls, she learned she would need to come back in to repeat the scan.

The second time she slid back into the tube, she sobbed as she laid in the dark, fearing the worst. In May 2017, she learned the suspicious mass could possibly be cancer. Shocked, she entered into a whirlwind of medical appointments, getting multiple opinions, including some that she should have surgery. She had a consult at Johns Hopkins' cancer center and ended up at MUSC Hollings Cancer Center working with neurooncologist Scott Lindhorst, M.D.

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Awareness needed MIS-C causes first S.C. death. Latest vaccine info Q&As separate facts from fiction.

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Q&A with leader of new COVID-19 vaccine trials

By Kimberly McGhee

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Patrick Flume, M.D., an MUSC pulmonologist who co-led the

AstraZeneca vaccine trial that recruited more than 650 people in Charleston answers questions about the Novavax and Johnson & Johnson/ Janssen vaccine trials that just launched in January. Flume



Flume

also co-directs the South Carolina Clinical & Translational Research Institute, the mission of which is to speed research breakthroughs, such as the COVID-19 vaccines, into the clinic.

The Novavax and Johnson & Johnson/Janssen trials will be recruiting 600 participants each in the Charleston area, and participants will be compensated. Flume would like to recruit clinical trial participants who reflect the diversity of the population.

"We need a broad mix of people to participate," said Flume. "We need young and old, men and women, Black and white, Hispanic and non-Hispanic."

Such diversity helps to ensure that the

vaccine, once released, will work in all of these groups.

"If we do a study in all young white people and the drug works, will it work in an older Black person?" asked Flume. "Probably, but I would feel a lot more confident about that if we had these people in the study."

To learn more about joining one of the COVID-19 clinical trials, visit the COVID-19 clinical trial website, contact the COVID Vaccines Research Team at covidvaccine@musc.edu or fill out a Vaccine Study Interest Form.

COVID-19 Vaccines QAs

Q. How do COVID-19 vaccines work, particularly those in clinical trials at MUSC?

The bottom line with vaccines is you're trying to give to the body the protein for which you want it to form an antibody. For the COVID-19 vaccines, that's the spike protein on the coronavirus that it uses to bind to host cells. The authorized Pfizer and Moderna vaccines use messenger RNA, which provides a template for building the protein and gives it to the cells so that they can crank out the protein. The AstraZeneca and Johnson & Johnson/Janssen vaccines puts a protein message into a harmless viral vector that can harness the cell machinery to start cranking

MUSC news

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Photo Provided

MUSC's COVID Vaccines Research Team recently launched the COVID-19 vaccine trials with Novavax and Johnson & Johnson/Janssen, with more than 600 participants from the Charleston area.

out the protein. The Novavax vaccine just gives the protein itself and ties it to a nanoparticle. So they're all different platforms trying to achieve the same goal: introduce the protein into the body so that antibodies can be formed and other parts of the immune system can be activated.

If the authorized Pfizer and Moderna vaccines are so effective, why do we need to continue to develop new vaccines?

First and foremost, we need more vaccine. We just don't currently have the volume of the drug we need to do broad-scale vaccination. To get people vaccinated across the nation and the world, we need more options, and we need options that don't present the logistical challenges, such as the ultracold freezers, that the authorized vaccines do. If we were getting news right now that AstraZeneca hit, and Janssen and Novavax hit, and we were going to have a lot more vaccine available and it would be easier to administer, we'd be in much better shape.

Note: Johnson & Johnson reported efficacy findings after this interview was conducted.

Q. What else can these trials teach us about the vaccines?

The more people who enroll and the more diverse the population, the more certain we can be that the vaccine will work for American men and women of every race and ethnicity. We will also ultimately need data on groups such as pregnant women and children so we can have a better understanding of how the virus affects these groups and whether or not it's safe to vaccinate them. We may miss such crucial data if it is not collected in a formal, systematic manner, as it is in a study.

Q. If I participate in the study, can I still get an authorized vaccine when I become eligible?

Half of those in the Janssen and two-thirds of those in the Novavax trial will receive the vaccine, and the rest will receive a harmless placebo that does not contain any vaccine. If trial participants become eligible for an authorized vaccine, there is a mechanism for telling them whether they received the vaccine or a placebo. Those who received a placebo could then obtain a vaccine but would remain in the study.

Letter from the Office of the PRESIDENT

Dear MUSC family,

On Feb. 8, eligible employees of MUSC will receive an email invitation to participate in our annual enterprisewide Press Ganey employee engagement survey. All employees hired before Nov. 9, 2020 are eligible to participate in this year's survey.

The survey takes about 10 minutes to complete. You can speak freely and know that your input will remain anonymous throughout the process. Automatically, your survey results go directly to Press Ganey, are de-identified and then returned to MUSC, so any information that you have shared stays truly confidential. The survey will remain open until Feb. 22 at 5 p.m.



Cole

Our organization faced unprecedented challenges in 2020, and I was proud to witness all the ways that you have risen above and beyond those challenges. Now, perhaps more than ever, your input is needed about what is going well and what needs improvement at MUSC. This survey gives your individual voice a platform to provide your ideas – please use it.

We appreciate your time and look forward to hearing your thoughts. Thank you for all that you do on a daily basis to change what's possible for those we serve.

Yours in service,

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

TRIALS Continued from Page Two

Q. If I participate in the study, do I still need to wear a mask and follow social distancing guidelines?

Yes, definitely. Not everyone in the trial will receive the vaccines; some will receive a placebo. But all participants should continue wearing masks and taking other precautions to prevent transmission. When we do these vaccine studies, we are not testing people to see if they get infected, only if they develop symptoms. Vaccines can give you benefit by preventing infection or preventing serious consequences of infection, and either one is a win. We know the Pfizer and Moderna vaccines prevent serious disease – we are still gathering data to determine whether AstraZeneca, Johnson & Johnson/Janssen and Novavax vaccines do so. But we don't yet know whether any of them prevent vaccinated people from getting the virus and passing it on.

When we started the AstraZeneca vaccine trial, we told people that this is not like the old Off commercials where the guy sprayed his arm with Off and stuck his arm in a container full of mosquitos. That is not what we are trying to do. We are not giving the vaccine and then telling people that they can go out there and mingle.

We'll get to a point when we don't need the masks and other precautions only when many more people have been vaccinated and the infection rate gets really low. When you see that positivity rate out there at 20-30%, we are a long way away from that. Until then, everyone needs to stay disciplined, including those enrolled in clinical trials.

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The final verdict was to do active monitoring – a painful process of watch and wait – and hope for the best.

Lindhorst said there was a possibility that the mass could be benign or a low-grade glioma, which is a primary brain tumor that starts in the brain and infiltrates normal brain tissue, making it impossible to remove it entirely with surgery. The type of tumor can't be confirmed without a biopsy, but since the mass is small and not growing or causing her symptoms, they have decided that the risk of surgery, such as bleeding and neurologic deficits, isn't worth it for now.

It's a tough position to be in, but Lindhorst notes that Salazar, 27, is a delight. "She is highly intelligent and inquisitive and comes armed to each visit with useful insights about her plan of care. We work together to manage her case as partners."

When he learned that she wanted to share her story to help others and shed light on health disparities in neuro-oncology, and in cancer in general, he wasn't surprised. Salazar knows all too well how research is essential to all fields in cancer care, especially in neuro-oncology.

"While there have been many advances over the last 20 years in understanding the basic biology of brain tumors, of which there are more than 120 distinct types, translating that understanding into new treatments is a long and difficult process that requires a vast amount of resources and often decades of efforts, moving clinical trials forward," he said.

"Having an ambassador such as Ms. Salazar, with a background in research and health disparities, which also occur in brain tumor patients, is invaluable."

CHAMPION FOR THE UNDERDOG

Salazar's brain tumor has her focusing on ticking off items on her bucket list, such as her passion for travel, as much as her finances will allow. She's doing this while pursuing a doctorate in biomedical science with a specialization in neuroscience. Some ask her why, as a first-year graduate student in the College of Graduate Studies at MUSC, she doesn't just quit the challenging coursework and have fun.

It has crossed her mind, but one of the most important items on her list – her driving dream – is to be a researcher who can make a difference for other minorities like herself. Besides, the one thing Salazar is not is a quitter.

When she came to San Francisco at age 8 with her parents from Ecuador, no one in her family spoke English. Even though her mom had been born in New York, she returned to Ecuador when she was too young to learn English. Salazar remembers growing up with parrots in her backyard, surrounded by an incredible biodiversity. She lived close to Quito, which sits high in the Andean foothills near the Amazon rainforests.

There was the cultural shock of moving to the United States and also economic challenges. Her parents decided to make the move to the U.S. to start a new life with only \$400 and the clothes on their backs. She remembers being shocked at watching her dad in a checkout line figure out that he couldn't barter with eggs to pay for their bill. Her family "couch surfed" for a while and gradually got on their feet, eventually making the move to Summerville, S.C.

Certain experiences made lasting impressions on her. She struggled to keep up with classwork in a language she didn't initially understand. She remembers early on how the family rationed water, keeping a bucket outside for rainwater to reduce the bill. Her parents took whatever jobs, sometimes multiple, to be able to support the family. She and her brother watched out for each other.

Salazar considers herself a converted Southerner at this point, blessed to have such hardworking parents who never let on to how much stress they must have felt. She worked hard, too, learned English and graduated from Summerville High School. The first in her family to attend college, she pushed through tough times at Winthrop University – times when she doubted herself and felt like giving up.

'Giving Back' to the ones who give so much to us

BY BRYCE DONOVAN

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There's no question, hospitals can be a scary place. After all, we aren't usually there under the best of circumstances. But sometimes those feelings of fear and uncertainty can turn into hope and optimism. Miracles - big and small – happen every day at MUSC Health. Broken bones are set. Wheelchairs are left behind. Cancer is defeated.

And when these glorious acts of fate happen, many times with them comes a family filled with gratitude. And they want to say thanks. Thanks to the doctors, nurses and others who cared for them during their stays at MUSC. Thanks in a way that goes beyond words. These thanks are why the MUSC Giving Back Program was established 10 years ago.

Sometimes donors direct their gifts to particular areas, but other times, they just want the hospital to use their donations to improve the level of care at MUSC. People can make these donations at any time during the year. But once a year — typically for a few weeks in July — dozens of programs within MUSC submit proposals for needs or wants in the form of hospital upgrades, new equipment, new and expanded patientcare programs, patient education materials and continuing education for caregivers, which are then allocated from the Giving Back funds.

This year, 11 grants totaling over \$14,000 were awarded to different programs within the hospital and university. When it comes to which proposals are accepted, program chair Stephanie Taylor, explained that the committee has a hard time choosing between so many worthwhile projects.

"There are certain programs where these donations have the most impact and those are the projects we're looking at. Obviously, we wish we could accept them all."



Photo by Sarah Pack One of the programs to benefit from the MUSC Giving Back program is Arts in Healing, which uses visual arts and music to provide therapy to patients.

2020 MUSC Giving Back grant recipients

Ellie's Way legacy kits Palliative Care — Awarded \$2,000

Legacy work is the practice of providing memory making and transitional objects to those losing a loved one or to patients and families coping with prolonged hospitalizations. At end of life, it both honors people and aids in healthy bereavement by creating an enduring, tangible connection. For those dealing with chronic illness and/or long hospitalizations, legacy work provides comfort and bonding to loved ones for whom patient visits may be limited.

Ellie's Way kits are packed with crafts and supplies for making keepsakes that help patients and their loved ones to feel connected even when they're apart.

Included in the kits are glass stones that can be customized with a thumb or fingerprint on the back. When families are separated by illness, patients can rub the stones to feel close to their families. Families sometimes use them to pray or send positive thoughts to their loved ones. For some families, the stones can help them to cope with the loss of their loved ones.

Comfort Kits Volunteer Services — Awarded \$2,000

Comfort kits are a valuable resource for families who come to the hospital for an emergency as well as for those who are here for extended stays. The kits include personal necessities, such as shampoo, conditioner, lotion, toothbrush and toothpaste, a comb, pen and paper, soap and an emery board. Each kit bag is hand sewn by the Pimlico Ladies Club. A grant of \$2,000 will supply 1,250 comfort kits.

Fidget toys for children in foster care Pediatric specialties — Awarded \$600

Sensory/fidget toys can very often help children in foster care cope during medical appointments and other stressful life events at the Foster Care Support Clinic. The grant will help purchase 30 sensory fidget toy sets and help more than 300 patients.

Drawn together Arts in Healing — Awarded \$2,000

Studies show that stuffed animals provide children with comfort and companionship. Children practice all sorts of skills with their stuffed animals. They teach, talk and take care of them and in so doing, rehearse everything they have learned through observation. These special plush friends often remind the child of home and provide a sense of security. The Arts in Healing team will use the grant to buy premade stuffed animals and fabric markers the children can use to color, draw or write about their feelings on the animals. The grant will help them to serve up to 320 families.

Therapeutic activity supplies MUSC Shawn Jenkins Children's Hospital Emergency Department — Awarded \$1,500

The grant will help the Emergency Department at the MUSC Shawn Jenkins Children's Hospital to build activity carts for pediatric patients and patients with sensory needs, such as autism spectrum disorders. The carts will include questionnaires, sensory toys, books and stuffed animals to help these patients to feel engaged and more comfortable in their new environment.

Sensory stimulation materials Senior care unit, Institute of Psychiatry — Awarded \$1,490

The senior care unit at the Institute of Psychiatry provides short-term care for adult patients with a broad range of mental health disorders. They will use the grant to buy a cordless sound machine, a cordless diffuser for aromatherapy and oils, various activity/ sensory stimulation lap pads, an herb garden kit,

MEET KEIA



Keia V.R. Hewitt, M.D.

Department; Years at MUSC Department of Emergency Medicine – MUSC Health Lancaster Division; Almost six months

How are you changing what's possible at MUSC

By focusing on high–quality care and patient safety and supporting the needs of our care team members in the Emergency Department

Who inspired you to go into medicine

My father. He encouraged me to embrace the power of the mind to diligently pursue my goals.

What music is in your player right now *John Coltrane, Odesza & Meshell Ndegeocello*

Hobbies *Reading, collecting African American art and running*

A New Year's resolution you want to keep *To be more charitable this year by supporting*

organizations that align with my personal mission statement

Famous quote

"Education is the most powerful weapon which you can use to change the world."

— Nelson Mandela



MOVE MORE CHALLENGE

LET'S GET MOVING MUSC!

- Step 1: Start or join a team at www.LowcountrySCHeartWalk.org/MUSC2021
- Step 2: Download the free Heart Walk app and login with your username and password
- Step 3: Once the challenge launches, you'll have 30 days to log your minutes. See if you can reach 150 minutes a week! Any way you move counts! You can walk, dance or even vacuum to stay moving.
- Step 4: Join us on Celebration Saturday (February 27th), as we celebrate the results of the challenge and what we have accomplished together as a community!

TIPS TO MOVE MORE

- Put the screens on hold. Instead of heading right for the TV after dinner, take a
 walk, practice a sport, or play a game of hide-and-seek.
- Clear some space, put on some music, and take a dance break!
- Tune into fitness during TV time. Walk or jog in place or on a treadmill, lift weights, or do yoga while you watch your favorite shows.
- Get your garden on. Gardening, mowing and yard work are a great way to get active outdoors.
- Create an at-home circuit workout without any special equipment.
- Learn more ways to add activity to your routine at heart.org/HealthyForGood

Simply download the Heart Walk app and GO!

Raise funds AND raise heartbeats



Conversation Café 2/10/21 @ 1pm



The MUSC Arboretum

Find out more about sustainability on our 90 acres with an inventory of over 2500 trees ranging from ancient live oaks to new fruit saplings

3rd Annual MUSC Septima P. Clark Poetry Contest & Awards Reception

Celebrating the poetic achievements of local youth and the legacy of a national hero



Submissions accepted from January 18, 2021 to March 15, 2021

Theme: Life During COVID-19

Virtual Awards Ceremony: April 30, 2021, 6:00 pm via Zoom

Registration is required. See link above for more.

Doctors push for awareness of MIS-C as S.C. marks first death from COVID syndrome

By Leslie Cantu

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As South Carolina marks its first death from multisystem inflammatory syndrome in children, or MIS-C, doctors from MUSC Children's Health have a simple message for parents:

If your child has a fever for more than three days with no obvious cause, ask the child's doctor if it could be MIS-C.

MIS-C is a complication of COVID-19. It remains rare. As of Jan. 8, there have been fewer than 1,700 cases and just 26 deaths reported nationwide. Unfortunately, because it is so rare, doctors sometimes don't consider that a child could be suffering from MIS-C.

Many of the children who have been treated at the MUSC Shawn Jenkins Children's Hospital ended up there because they became incredibly ill after going to emergency rooms three, four or five times without anyone raising the possibility of MIS-C, said Allison Eckard, M.D., division chief for pediatric infectious diseases at MUSC Children's Health. She is also leading a study at MUSC investigating a novel therapy to treat children with MIS-C who have developed cardiac complications. And as the number of COVID-19 cases increases across the state, the number of children with this rare complication is bound to rise as well.

"Yes, this is very rare, but the more COVID there is in the community, the more cases of MIS-C we will see," Eckard said.

MIS-C is a delayed inflammatory response to the novel coronavirus. The body overreacts and sets off a cascade of inflammation that can overwhelm the organs, she said. Some patients might





Image Provided

Although MIS-C remains a rare complication of COVID-19, doctors say it shouldn't be overlooked as a possibility if a child has a prolonged fever with no obvious cause.

not even realize they had the initial coronavirus infection because it was so mild.

MUSC Children's Health has treated 16 patients for MIS-C. All have ultimately done well, although a number of them were sick enough to require intubation or treatment with ECMO, a machine that does the work of the heart and lungs.

A key point, Eckard said, is that most of the children were perfectly healthy before coming down with MIS-C. Only one child had a preexisting condition, and Eckard thinks that condition probably didn't factor into the MIS-C diagnosis.

"We don't know which children are going to have more severe MIS-C than other children, and not all of them are this sick, but most of them require hospitalization and some amount of therapy. And the sooner the therapy, the better," she said.

Christopher Pruitt, M.D., medical director of the Emergency Department at the MUSC Shawn Jenkins Children's Hospital, echoed Eckard's message that parents should ask about MIS-C if a doctor doesn't bring it up.

Because fevers are so commonly seen in emergency rooms and urgent care centers, and MIS-C is so rare, it's a diagnosis that often isn't top of mind for providers, he said.

"We see so many kids with fever

that we really have to actively flip into that mindset of thinking of MIS-C as a diagnostic possibility," he said.

In addition, the understanding of and guidelines for dealing with MIS-C continue to evolve as doctors and scientists learn more.

"There's no gold standard for diagnosing it. It's a constellation of clinical symptoms, along with lab tests, along with indication of recent COVID infection, but some of those things may be absent depending on the case," he said.

Pruitt said Emergency Department doctors at MUSC Children's Health are always available for consultation if community providers have questions.

"If you have concerns, just call," he said.

The average age of a MIS-C patient is 8 years old, but the syndrome has been diagnosed in babies and young adults up to 20 years old.

Parents should also consider MIS-C if there's no explanation for a child's illness, Eckard said.

"They know their children the best," she said. "If their child is not acting right, has a rash that is different than they've ever had and particularly if he or she has a high fever without an obvious reason — parents need to ask their provider, 'Is it possible that my child has MIS-C?"

What you need to know about the COVID vaccine?

MUSC clinical and research specialists in vaccines and infectious disease weigh in on the most pressing issues related to COVID-19 and vaccination. Danielle Scheurer, M.D., is MUSC Health System's chief quality officer and Krutika Kuppalli, M.D., is an infectious disease expert at MUSC. The following is a condensed compilation from several recent articles that can be found in their entirety on the MUSC Catalyst News digital platform at web.musc.edu/about/news-center.

Q. How do I know which brand of vaccine I got?

Scheurer: Quite simply, MUSC only administers the Pfizer vaccine. Long-term care facilities and chain pharmacies like Walgreens and CVS are the only ones in South Carolina using the Moderna vaccine. Everything else is Pfizer (at least for now).

Q. What have our two most recent quantities of vaccine been? Are we trending up?

Scheruer: Right now, we're receiving about 80% of requested vaccine. (Note: Two weeks ago, MUSC got 30% of what it asked for.) Yes, we've lowered the number we're requesting, but we're still hoping for at least 12,000 doses a week. Last week, we got 9,000, and this week, we think we're getting 10,000. Like I've said before, it's a moving target. Typically, toward the end of the week, we get a tracking number that tells us how many cases we're getting. It's not an exact number, but it gives us a bit of a ball park.

Q. Doses are one thing, but does MUSC have enough syringes and other necessary equipment?

Scheurer: There's always one thing that is a pain in the neck, and right now, syringes-needles are the one. So it's the new bottleneck. I think one of the reasons we're in this situation is because even though we've found that there might be as much as 20% more doses in each shipment than we thought at the very beginning, the government is still giving the related equipment (gloves, syringes, etc.) based off the assumption of five doses per vial.

Q. How long after the second dose does it take for the vaccine to start fully working?

Scheurer: For the Pfizer vaccine, it's seven days after the second dose. Moderna is 14. But that's just when those companies decided to test the people involved in their trials. It could be sooner than that but just to be safe, after that amount of time you should be good to go.

Q. How long does the vaccine actually last?

Scheurer: Obviously we don't know for certain, but there is some data from early clinical trials that those who received the vaccine had antibodies up to eight months out. Keep in mind, that's just as far as we've gotten with being able to collect data. It could last way longer, but right now, that's what we know.

Q. Can people get the second shot inside the 19-day window if their schedules necessitate?

Scheurer: I would definitely advise against that. This is a little unusual to have a booster so close after the initial dose, but we're in a race against time here. The vaccine manufacturers want to help to speed the process up. So typically speaking, three weeks is super early for a second dose of a two-step vaccine. In other words, you're better off going late (beyond the 23 days) than early, for lasting effect.

Q. What do people without computer access do if they need to sign up for the vaccine?

Scheurer: Starting this week, we will open a 24-hour call center. So people are welcome to call 843-876-7227 to schedule their appointments. Those with internet access can always go the route of muschealth.org/vaccine.

Q. We've talked about this before, but how worrisome is the new COVID-19 South African strain, or "variant"? And is Pfizer going to need a booster? Scheurer: It's a real concern. We know it's more contagious. And there is evidence that the vaccine is less efficient against it. It's kind of like the flu in the sense that the vaccines don't tend to be an all or none proposition – there is a gradation of effect. Maybe you have symptoms, but they're not as severe. Maybe your body doesn't fend off the virus as quickly. You are almost always going to have some level of protection, having received the vaccine, but we just can't really say how much. That said, right now there is no evidence that any of these variants render any of the vaccines completely ineffective.

Q How did we find out about these variants popping up in South Carolina?

Scheurer: The South Carolina Department of Health and Environmental Control, or SC DHEC, said that they are doing surveillance for variants every week. But my understanding is it's a very small number of samples that they randomly screen. On top of that, they aren't the only ones in the state running COVID samples anymore. So their screening doesn't even draw from all of the cases in South Carolina. It's just a small fraction. So for this South African variant to show up is a legitimate concern.

Q. Speaking of scheduling, I'm hearing from several people who are having a tough time with cancellations. Some don't know where or who to reach out to and some don't have MyChart accounts. What should they do?

Scheurer: First off, I appreciate how conscientious people are. They don't want to hold appointments from somebody else. Just know we have a feature to see if somebody has double booked a dose, and we're able to contact them. That said, if anybody has any concerns about double booking or not being able to get a second dose scheduled, they can call 843-876-7227 or visit muschealth.org/vaccine. Additionally, I get it if some people don't want to sign up for a MyChart account just to get a vaccine and there's a way to bypass it simply by choosing 'check out as guest.'

Q. If somebody has already gotten COVID-19, should they still get the vaccine? Scheurer: It's not a perfectly simple answer, but yes, they're eligible for the vaccine, and there's no medical reason why they shouldn't get it. But given the shortage, we're telling everybody who falls into Phase 1a that it's OK to wait 90 days post-symptoms to schedule your vaccine because natural immunity lasts at least that long.

Q. What would you say to people who are hesitant to get vaccinated once they are eligible?

Kuppalli: There's a lot of vaccine hesitancy still, a lot of people with questions about the vaccine. I sit on a number of national panels where we talk about this reluctance. With the Pfizer-BioNtech and Moderna vaccines, you have a perfect storm where a vaccine was created in record time using a novel platform – messenger RNA (mRNA) – that people don't understand.

People who are not in science hear that the vaccines were developed in record time and worry that corners were cut at the cost of safety and efficacy. That's not the case. The vaccines were authorized quickly in part because researchers were

MUSC launches five-year strategic plan: OneMUSC

By Leslie Cantu

cantul@musc.edu

OVID-19 forced organizations across the country to reshape their plans. At MUSC, however, the pandemic only strengthened leaders' resolve to move ahead with a bold strategic plan that builds upon the institution's past five years of work under Imagine MUSC 2020.

OneMUSC, the new roadmap that will guide the vision for every individual at MUSC, was previewed on Jan. 25 and will launch upon the final review and approval of the MUSC Board of Trustees.

"The future we desire for our patients, students and ourselves demands that we boldly pursue excellence during what is clearly one of the most pivotal points in our transformational journey," said David Cole, M.D., FACS, president of MUSC, during the live-streamed event.

During the interactive presentation, employees were asked to share one word that encompassed their early feelings about OneMUSC. Words like unity, teamwork, excited, respect, encouraged, all-us flashed across the screen faster than event emcee, Heather Woolwine, could even read them.

OneMUSC, Cole explained, seeks to break down the silos of the tripartite aspects of MUSC – research, clinical care and education – in order to develop even more collaboration and innovation in service to our purpose of preserving and optimizing human life in South Carolina and beyond. Further, the plan emphasizes the importance of inclusion so that all voices and ideas are heard and have the opportunity to reach and benefit all people.

The plan stands upon three pillars – Innovation, Impact and Influence – and the seven bold goals that are necessary to fulfill these concepts:

Create a culture of innovation.

□ Become the preeminent model of inclusion and equity, setting a national standard among academic health science systems.

□ Reimagine the learning experience to optimize educational value.

□ Forge innovative partnerships to increase scale, scope and impact.

□ Build a high-performing integrated academic health system.

□ Integrate research and clinical strengths to transform health care.

□ Promote thought leadership to build a national presence and shape policies.

Willette Burnham-Williams, Ph.D., chief equity officer for MUSC, noted that the word "innovation" conjures images of science and technology for



If nothing else, the coronavirus pandemic has shown how important collaboration and innovation are to improving health and health care.

Photo by Sarah Pack

most people, yet innovation is really about people. "Belonging" and "innovation" are intrinsically tied together, not separate concepts, she said. Innovation occurs when people feel supported and valued and when they are invited to the table.

For example, M.D./Ph.D. student Heather Holman was appalled to learn in class of poor CPR outcomes. She talked to a faculty member and the Human Centered Design Team and ended up as part of a group that won first prize in the inaugural SC Innovates competition for its design of a device to improve blood flow to vital organs during CPR.

"My hope is my research can make a contribution to the field and push it forward," she said. MUSC is lucky to have lots of resources and enthusiastic faculty, she said, and she encouraged other students to bring their ideas to faculty members.

Danielle Scheurer, M.D., chief quality officer for the MUSC Health system, noted that the "impact" of collaborations can sometimes be surprising. She highlighted a novel collaboration between Mary Mauldin, Ed.D., associate director for education in the Office of Interprofessional Initiatives; Erik Modrzynski, emergency manager for MUSC Health; and faculty members and students at the School of Architecture at Clemson University. Their efforts started with one project that had a domino effect of outcomes, including the development of a portable pod for COVID-19 testing and an interprofessional class for MUSC students in emergency management.

Eugene Hong, M.D., chief physician executive, said that the third concept, "influence," relates to leading the way for others to follow. He especially highlighted MUSC's ongoing work in researching and closing racial disparities in health and health care.

Chanita Hughes-Halbert, Ph.D., the SmartState Center of Economic Excellence AT&T Distinguished Endowed Chair in Cancer Equity, explained that working to improve health outcomes in minority populations is her passion.

"One of the concrete and tangible ways that my roles, along with others, have been influential is by changing the nature and scope of clinical trials in this country – clinical trials related to improving therapeutic outcomes and options for cancer patients. We have to have a seat at the table. We have to continue to make progress by being an influencer across the country as well as locally."

The year 2020 was one that few could have imagined, still, MUSC made remarkable achievements that encourage the MUSC family to look back, proud that it met every challenge head on with tenacity, dedication and resilience. The groundwork laid by Imagine MUSC 2020 during these past five years prepared the institution to step fully into this moment, said Cole in an enterprise message in November. And at such a transformational time in history, when thoughts such as new normal, quarantining and social distancing continue to capture the national consciousness, MUSC embarks on a new path – OneMUSC – our next strategy for embracing and creating the future together, building on the pillars of Innovation, Impact and Influence.

To learn more about OneMUSC, visit web.musc. edu/onemusc.

'NOT THROWING AWAY MY SHOT'

By Kelly Warren

A chronicle of my COVID-19 vaccine trial journey.



Vaccine Journal – Part 5

Editor's Note: Kelly Warren is a manager with MUSC's Enterprise Campaigns and University Communications. Warren volunteered to be a participant in the MUSC/Astra Zeneca COVID-19 vaccine trial. She shares her experiences so that others might also feel comfortable receiving the vaccine.

It's hard to believe that it's been nearly three months since I received my first injection as a participant in the AstraZeneca COVID-19 vaccine trial. Then, almost a month later, I received my second dose. With new vaccine trials gearing up at MUSC, the vaccine rollout underway and people still wondering if they should receive it, I'm sharing another journal entry to help to encourage people to take their shot!

Dec. 3, 2020: Today, I am headed back to campus for my second injection.

Truthfully, I think I'm more nervous this time than I was for the first visit. On one hand, it's nice to know what to expect from the visit and what it's like to feel some side effects. On the other, it wasn't a very fun post-shot evening last time, and I don't really want to feel crummy again.

I've done some research, and it seems like more people were symptomatic after the second shot than the first. I'm not sure if this means I was an outlier with my experiences after the first visit, if I should expect a similar experience after round two or if I'm just overthinking this and there's no way of knowing what will happen.

I have a feeling it's the latter, and I guess we will find out soon!

AFTER THE APPOINTMENT

Injection number two is done and floating around in my body... or however it is the vaccine moves around! This appointment was not as long as the first one but did follow some of the same steps. We began by going over my medical history again and focusing on how I've felt over the past month. I haven't been worried about the symptoms I experienced after the first shot, but it was reassuring to hear again that my response was very normal.

After the paperwork was complete, the next stop was the blood draw. Once again, the nurse did a great job, and I had no pain with the stick or draw. After collecting the blood, with fingers crossed for antibodies in it, they did a nasal test. I'm honestly still not sure what it's for, I just know it's testing something, and I'm glad it isn't as painful as a COVID-testing swab!

Everything was looking good, so it was on to the last stop — shot time. The nurses geared up in PPE, and one quickly administered it. Once again, it hurt a little bit, similar to the flu vaccine. I waited around after the shot for 15 minutes. When there were no immediate side effects, I was cleared to leave, wait and watch to see what would happen.

Fingers crossed for no symptoms this time, but I won't lie. I am a little on edge and really hoping that I don't have a repeat of last time. It wasn't the worst thing ever, and I feel a little bit like a wimp, since it was brief and mild, but I would really prefer not to feel crummy. There's nothing I can do about it either way, though, so here's to hoping!



Photo by Sarah Pack

MUSC's Kelly Warren meets with MUSC AstraZeneca study nurse Alexandria Murray during a Dec. 3 appointment. Kelly volunteered for the COVID-19 vaccine trial.

Part 6

Two months ago, on Dec. 3, I received my second shot in the AstraZeneca COVID-19 vaccine trial. After my experiences with the first shot (https://web. musc.edu/about/news-center/2020/12/10/firsthand-account-of-woman-in-covid-19-vaccine-trial-at-musc), I was a little nervous about a possible reaction. On the "sickness scale," that round really wasn't bad. However, my immune system tends to be solid, and I don't get sick often, besides allergies, so even one night of fevers and aches was a shock to my system.

After receiving the second shot, I headed back to my house and finished the work day, with half of my mind devoted to my to-do list and the other half on guard for any possible symptoms. As afternoon turned to evening, and I put away my work, my mind went on overdrive, as I no longer had work distractions. I tried to stay busy, but it's hard to turn the brain off.

Fortunately, when all was said and done, it turned out that I was worrying for nothing, as I never even felt the symptoms I'd experienced after the first shot. The only thing I noticed was a headache, but those are a frequent presence in my life, so this one was just likely a "normal life" thing.

When I woke up the next morning, I was a little worried that something would crop up as a delayed reaction. But, it seemed I was all clear. The next few days I never experienced any of the chills, aches, fatigue or fever of round one. My arm where I received the shot was sore for a few days, but again, this didn't seem any different from my flu shot.

For a week after the shot, I completed my daily diaries, noting the lack of symptoms and dutifully taking my temperature. The next week, I returned to campus for another appointment. It was a quick round of questions and a small blood draw before they sent me on my way.

During my appointment, I asked where we would go from there. I was told that I would have another appointment in two weeks, similar to the one that I'd had that day. Then, appointments would be more spaced out to 30, 90 and 180 days apart.

I was also curious about when I would officially find out if I had received the vaccine or placebo and how my antibodies look. When the study was initiated, they planned to unblind this data two years from the first visit. But with vaccines

MUSC celebrates Black History Month



1824- The Medical College of the State of South Carolina is established.



1897- The Hospital and Training School for Nurses is opened for the education and treatment of African Americans.



1971- Bernard W. Deas, Jr., M.D., is the first Black student to graduate from MUSC.



2016- The MUSC College of Medicine is recognized as having the fifth largest number of African American medical students in the U.S., outside of historically black colleges and universities.





1896- Dr. Lucy Hughes Brown is the first Black female physician in the area and helps establish The Hospital and Training School for Nurses.



1969- Hospital workers strike for 90 days for higher pay, equal treatment, improved patient safety and unionization (March 17 - June 27).



1976- The first Office of Minority Affairs, led by James Martin, Ph.D., is established.



2021- MUSC establishes the first Office of Equity, integrating and elevating MUSC Health and University's commitment to inclusion.

www.musc.edu

VACCINES Continued from Page Seven

able to combine certain phases of the clinical trials of these vaccines that didn't affect the efficacy or safety. The federal government also took a gamble, which paid off, in ramping up production of the vaccines as they entered phase 3 of the clinical trials. Because of that, millions of doses were available and ready to ship when the vaccines proved to be safe and effective in the phase 3 trials. There's also a lot of misinformation about how the mRNA vaccines work. I've received calls and emails from people who have been misled into believing that the vaccine is unsafe, can cause COVID-19 and will affect their genetic makeup. The amount of misinformation on social media is unbelievable. People should know that the mRNA platform used for the Pfizer and Moderna vaccines has been in development for over 30 years. There are trials using these types of vaccines in other infectious diseases, and the technology has been heavily invested in prior to this pandemic.

Although there have been only a few reports of people experiencing adverse events after the vaccine, such as anaphylaxis, there have been many stories written about them, leading to a misperception that this is a common problem. In reality, given the number of people who have been vaccinated, the proportion of those who have developed anaphylaxis is very low. In fact, the Centers for Disease Control and Protection reported in a Morbidity and Mortality Weekly Report released on January 15, 2021 that, out of 1,893,360 individuals who had received the COVID-19 vaccine, there have been just 21 cases of anaphylaxis reported. While it is understandable that people might be concerned about this potential side effect or others, I want to assure the public that the vaccines are in fact extremely safe.

Q. When will children be able to get the vaccine?

Scheurer: I would venture to say the earliest that could happen is summer, based on the additional clinical trials that need to be completed and published. At the rate we're vaccinating in the U.S., it will take that long to get all the people over the age of 16 vaccinated anyway.

Q. On the topic of monoclonal antibody treatment, should people who have received it also get the vaccine?

Scheurer: Monoclonal antibody treatment is similar to the vaccine, only instead of giving your body the information it needs to make anti-COVID-19 antibodies, it's skipping that step and giving you the antibodies. We think that the ones your body makes, via the vaccine, are probably more effective than giving you the antibodies themselves, but they're still both effective. But again, the short answer is the same as for those who have already contracted COVID-19, we're telling them to wait 90 days after a monoclonal antibody infusion to schedule their vaccine.

Q. Does receiving the vaccine mean that you don't need to follow public health precautions anymore?

Kuppalli: No. Right now, we understand that the COVID-19 vaccines prevent you from getting severe Coronavirus infection, but we still don't know whether they prevent you from transmitting it to others. That's why it is so important for all of us to continue to adhere to the important public health precautions we've been talking about for the last year. Even after you have been vaccinated, it is important to continue to wear an appropriately fitting face mask, adhere to good hand hygiene, maintain appropriate physical distance and avoid crowds of people. The vaccine is not a magic bullet, but instead another tool in our box that can be used with our public health measures to help to control the pandemic.

PLATEAU Continued from Page One

they think it's more lethal than the first version of the coronavirus. That's not a good thing."

But in the meantime, the Tri-county area has a few things going for it. As the epidemiology team has noted, the growth rate of COVID-19 slightly decreased in Berkeley, Charleston and Dorchester counties combined as of Feb. 2.

"We are now seeing the number of cases per day slowing decreasing, but from a high level, so there are still many people infected in the community," Sweat said.

And the number of hospital beds in use hasn't spiked as some feared, although Sweat said there is some concern about an increase in the severity of the illness in people hospitalized with COVID-19.

Also, some people are getting vaccinated, including health care providers who work close to patients, people age 70 and up and parents with

GRANTS Continued from Page Four

weighted wraps and lifelike interactive companion "pets" for comfort and nurturing. These items help to keep patients' minds active and calm.

The D–Pod Autism Friendly Initiative Emergency Services — Awarded \$1,350

The Emergency Department at MUSC is organized in five pods. A nurse in the D-Pod came up with the idea for the D-Pod Autism Friendly Initiative. The initiative includes building an autism-friendly toolkit to help with the sensory and communication needs of patients with autism spectrum disorder (ASD). The grant will buy supplies for the toolkit like noise-canceling headphones, fidget items/stress balls, a weighted lap band, EZ talk communication board and caregiver communication cards.

Bedside shift report education/patient engagement

Quality Department — Awarded \$1,550

The Quality Department will use the grant to make videos that show how best to include patients and their families in shift change. The goal is to ensure that care teams communicate all important information about care while giving the patient an opportunity to ask questions. The grant would cover

children who are chronically ill or have other special needs. New vaccine trials are getting underway at the MUSC and across the country, which may lead to a much-needed increase in the vaccine supply.

It is likely that those vaccines protect people against the emerging variants, but there are some concerns. Vaccine makers are studying that and looking for ways to boost their effectiveness as needed.

When it comes to people who have actually had COVID-19 in its earlier form, Sweat said research suggests that a mutated version of the COVID-19 virus found in South Africa may be able to infect them again. "Like flu, year to year it might change so much that your body doesn't recognize it."

Bottom line: it's no time to let your guard down, Sweat said. "This is not the time to push the limits."

TRIAL Continued from Page Nine

being approved and distributed, I assumed this information would be released sooner. Because of my age and health, it'll be a while before I qualify to receive a vaccine. However, if I don't have antibodies from the two study "vaccines" I've received, I would certainly want to be vaccinated as soon as possible! I learned subsequently that researchers were allowed to "break the blind" for people as they qualify to get the vaccine. In other words, the researchers told study participants now eligible for the vaccine what they received so they could make informed choices about getting the vaccines currently in distribution.

So, until I am eligible, and/or find out that I did receive it, I'll just keep masking, distancing and sanitizing, hoping for the best but not taking chances.

Note: Since my last appointment, I have continued with occasional appointments and digital diaries. I'm not sure when I will be eligible for the vaccine, so this temporarily

the cost of videography and closed captioning for two videos.

Support for children with diabetes Pediatrics Endocrinology — Awarded \$300

The Division of Pediatric Endocrinology sees an average of 130 to 140 new diabetic patients each year. Many of these patients have difficulty accurately managing carbohydrates and calculating insulin. A book titled, "The CalorieKing Fat & Carb Counter" helps children and their families to effectively manage carbs so that they can administer insulin properly. The book also provides nutrition information for many local restaurants. This grant will allow the division to purchase about 30 books for its patients.

MEDUCARE pediatric transport MEDUCARE Pediatric Trauma Team — Awarded \$750

The MEDUCARE Pediatric Transport Team transports children and babies to and from the MUSC Shawn Jenkins Children's Hospital by ambulance and helicopter. The \$750 grant will allow the team to buy two Ferno Neo Mate infant restraint systems. The system's unique design keeps a baby's head stable on a stretcher. This is especially important for babies who are younger than 2 months old and cannot control their heads. concludes my entries. Stay tuned for my return, hopefully soon, after I find out what I actually received. In the meantime, stay safe, keep your masks on and spread the word to anyone with any vaccine hesitation!

SCBIO 2021 event set for Feb. 16-17

MUSC employees and students can join life sciences leaders and companies Free at SCBIO 2021 – South Carolina Life Sciences' Virtual Annual Meeting on Feb. 16-17. The event features national speaker sessions on innovation, partnerships, talent and more.

The conference will include a virtual exhibit hall showcasing life sciences organizations from across the country and award presentations. For meeting information, visit https://www.scbio.org/cpages/annual-conf-2019.

To register, visit https://web. cvent.com/event/40cd2190cb90.4174-b8b1-254420315c89/ regProcessStep1:7649a295.4873.45c1-934f-dd9e7c7ab770 and select "SCBIO Mission Partner" to gain free admission.

Testing kits for A1C Pharmacy — Awarded \$2,000

Even though measures have been taken to reduce the risk of COVID-19, there are still patients in highrisk groups who do not feel comfortable coming to a facility for care. Still, tracking blood sugar levels is important. The A1C is a simple blood test used to diagnose prediabetes and diabetes and is one way providers can assess a patient. This lab is typically drawn quarterly. There are home testing kits for A1C available, but they are not covered by prescription drug plans. Each kit costs \$55 and includes four tests – one for each quarter – plus the cost to ship it to the patient. A grant of \$2,000 allows for the purchase of kits for 30 patients.

Black History Month: Virtual cooking class with two Lowcountry chefs

In honor of February being Black History Month, MUSC's Office of Student Programs and Student Diversity will host a virtual cooking class at 6 p.m., Tuesday, Feb. 16 via Zoom event. Learn how to cook a beloved Charleston staple – shrimp and grits – featuring Lowcountry chefs Sameka Jenkins and Emma Cromedy.

An RSVP link to watch the demonstration can be found at https://education.musc.edu/students/spsd/ diversity.

PATIENT Continued from Page Three

"I had three part-time jobs in college — a supervisor in a social and behavioral research lab that studied policy; a resident dorm night host, where I worked from 11 p.m. to 7 a.m. checking IDs; and a research assistant at the Winthrop counseling center — while I was taking a large load of courses to graduate early to save money. I also was doing extracurricular activities involving research," she recalled.

"Though this experience was stressful and resulted in many moments of doubt, it is rewarding looking back on this and seeing how the hardship turned into a purpose for my future."

After graduating from Winthrop, she landed a research assistant job at MUSC, which is when she had the MRI scan and received a cancer diagnosis. She worked through the grief and weighed what was next for her future, deciding she didn't want her diagnosis to deter her from her career goals. Her curiosity for science brings her joy as does bringing her past experiences to bear on research projects that target reducing health disparities and developing better public health policies to reduce barriers to quality health care to underserved populations.

"I think it's really important to have that interdisciplinary training, especially if I want to ultimately help marginalized



populations. I conduct research through the eyes of a Latino, of an immigrant, of a first-generation college student, as someone who grew up in a low-income household and of someone who has an invisible illness, like my brain tumor," she said.

"That awareness and knowing that everything — society, education and health care — is experienced differently, depending on your nationality, race, sexual orientation and religion, is what propels me to break down all those barriers and ensure that everyone has an equal chance at getting the best and highest–quality education and health care that they deserve."

It's why, despite demanding graduate school studies, she still finds time to

Dr. Scott Lindhorst is guiding Salazar through the "watch and wait" process with her tumor and is impressed with her desire to help others in similar situations.

volunteer to be a tutor at Title I schools, which have large concentrations of lowincome students. She relates well to the challenges that these kids face.

"I just love working with the students. I've always loved kids. I know the impact that having a mentor can have and having someone know that you're in their corner and that you're cheering them on because we all need someone to be our cheerleader. I remember how valuable it was when I had a mentor speak with me and sit down with me to teach me or to encourage me. So, I'm hoping that those one-on-one connections make lasting impressions. They're also teaching me a lot, so it's like a two-way street. The kids are just amazing."



Like many cancer patients, Salazar is navigating a phase of wait and see. Doctors still are advising she hold off on surgery, given the tumor's location, and the good news is it doesn't seem to be growing. At some point, she hopes to get a liquid biopsy that wouldn't require surgery. She's grateful she isn't experiencing symptoms, and she's gotten over the worst part of the shock, she said.

Lindhorst has helped to ground her through the ups and downs of her journey and has been very responsive to her questions.

"I feel like he really takes time to listen. Not only is he brilliant, but I feel like he also does a great job advocating for his patients. Because in that position, I feel like you need to know your stuff, but you also need to be able to relate to patients. Whenever they're having a moment or they're crying in your office, you have to be able to comfort them as well. You can just ignore that, even if it's a small gesture of just handing them a tissue. It can really go a long way. So, I'm very lucky that he's my doctor."

Her cancer journey has confirmed for her the amazing power of kindness. "We really never know what someone's going through, what their journey is, what they've been through, what they're currently experiencing. Grace and compassion can really go a long way."

She recommends that cancer patients find support — through family, friends and support groups — and look for ways to give back so that a cancer diagnosis doesn't become the focus of their lives.

"A piece of advice that I would give to families taking care of cancer patients, and physicians as well, is to show up as your most authentic selves because the cancer journey — the diagnosis and everything — is terrifying. And it doesn't just stop a couple months after the doctor's visit or after remission, but it's an ongoing journey. And just having someone with them that is willing to get down in the trenches and fight with them and be with them through the highs and lows really, really makes a difference."

Her cancer journey also has confirmed her career choice.

"As long as I can make a positive impact in people's lives, I'll be happy."



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Office of Student Programs & Student Diversity The link to join the program will be sent to registrants 24 hours in advance.