

## 'I feel it in my bones.' What may be next with COVID as case numbers almost flatline

By HELEN ADAMS

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After hitting a pandemic-high peak in January, COVID cases in the Charleston Tri-county area have slid into a welcome spring slump. "Numbers are really low. It's at least as low as it was a year ago in the summer when everybody thought the virus was gone," said Michael Sweat, Ph.D., leader of MUSC's COVID-19 Epidemiology Intelligence Project.

His team's latest update shows there were an average of just 3.9 cases per day per 100,000 people in Berkeley, Charleston and Dorchester counties combined for the week of March 27 through April 2. Compare that with 416 cases per day per 100,000 in mid-January.

"It's continuing to decline week to week. So that's just stellar," Sweat said.

So where do we go from here? Sweat, a professor in MUSC's College of Medicine, adjunct professor at the Johns Hopkins Bloomberg School of Public Health and former research scientist with the Centers for Disease Control and Prevention, has a hunch. "I think there is going to be an increase. I



Sweat

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U.S. Assistant Health Secretary Rachel Levine provided the opening keynote address for the two-day virtual summit.

## LGBTQ health summit finds receptive audience

By LESLIE CANTU

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Attendees at the inaugural LGBTQ+ Health Equity Summit at MUSC came away optimistic and excited about the work that is happening to address health disparities that affect members of this community. Participants described the sessions as powerful, educational, informative and thoughtprovoking.

The two-day virtual summit came about as MUSC sought to increase its health care providers, students and staff members' understanding of the challenges facing the LGBTQ community. Very quickly, staffers in

the Department of Diversity, Equity and Inclusion realized that there was a need beyond MUSC for such an educational opportunity and opened it up to everyone. The result — people from across the U.S., and even Europe, tuned in to hear from medical providers, researchers and members of the community.

The conference began with a keynote by Assistant Health Secretary Rachel L. Levine, M.D., the first openly transgender person to be confirmed by the Senate.

"Diversity in all of its wonderful aspects should be not just tolerated and not just accepted. Diversity should be welcomed, and actually celebrated, for the way

it strengthens and enhances any organization, in any community," she said.

She noted, as did several other speakers, the alarmingly high rates of suicidal ideation and attempts among LGBTQ youth.

"One thing I do want to emphasize," she said, "is that while the LGBTQI+ community does face higher rates of anxiety, depression, suicide and addiction, there is nothing inherent with being part of our rainbow family that predisposes us toward these mental health challenges.

"It is the bullying. It is the harassment. It is the overt

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MUSC and Medical University Hospital Authority (MUHA) Board of Trustees held their regularly scheduled committee sessions and board meeting on April 7 and 8 and returned to pre-pandemic meeting operations.

David J. Cole, M.D., FACS, MUSC President, provided board members with a regular report detailing numerous “wins” across the education, research and clinical missions of the institution. Some specific highlights included an update on the growth of the In Our DNA SC community health research program, as well as MUSC’s role as a co-leader in the \$3 million, 4-year Stand Up To Cancer grant that established the Southeastern Consortium for Lung Cancer Health Equity of NCI-designated centers (MUSC, Virginia Commonwealth University and University of North Carolina-Chapel Hill). The institutions involved have the collective goal of identifying and overcoming barriers to lung cancer screening and developing more precise strategies to identify those at high risk. Lung cancer is the 2nd most common cancer in the U.S. and the leading cause of cancer deaths in black and white men and women. The study pairs basic scientists and population and behavioral scientists at each institution to create a study that’s highly translational and health disparities focused.

### BURN CENTER PROGRAM

Cole also highlighted the recent No. 1 national rankings for patient

survival associated with the MUSC Burn Center (Vizient - 2021 Q1, Q3 and Q4 quality data, adult and pediatric services combined) and congratulated the team for their recent achievements in quality and innovative burn care for adult and pediatric patients.

“As South Carolina’s only comprehensive burn center and program, we’ve not only seen increased volumes and helped provide this specialized care in state, our teams have also managed to do so while being innovative in what they can offer patients and by consistently receiving high marks for the quality of care they are providing,” Cole said. “Achieving this recognized level of patient care, safety and outcomes is outstanding.”

### CAMPUS ELEVATED WALKWAY PROJECT

The board voted to approve the pursuit of funding for an MUSC campus elevated walkway to physically connect the entire MUSC campus in Charleston and maintain accessibility and operation during disaster response and recovery.

“This elevated walkway bridge is a critical investment related to flooding and storm resilience for the flagship MUSC campus on the Charleston peninsula,” said James Lemon, D.M.D., MUSC Board of Trustees chairman. “It’s certainly no secret that the area is prone to flooding during storms, heavy rains and sometimes, normal high tide events. We want to partner with federal and state authorities to fund the protection

of the state’s only comprehensive academic medical center so that patients, care team members, and supplies can move freely from building to building during storm and flood events. A storm may rage outside, but our people have to be able to provide the high-quality care and emergency response that South Carolinians depend on.”

The project aims to construct an elevated connector bridge adjacent to Doughty Street from the second floor of the Ashley River Tower over Courtenay Drive to the second floor of the Bioengineering Building. Connections from this Doughty Street bridge will also be made at the second floors of the Thurmond Gazes Building and the Institute of Psychiatry building. A separate connector bridge would be constructed from the second floor of the College of Nursing Building to the second floor of the Clinical Sciences Building. Once completed, all major campus buildings would be connected at the second-floor level.

### COLLEGE OF NURSING RENOVATION

The board also voted to approve renovation of the existing ground floor of the College of Nursing (CON) building on Jonathan Lucas Street. The ground floor renovation will consist of approximately 11,000 square feet and will include a new accessible lobby from Jonathan Lucas at the ground level, as well as an interior staircase for access to the 2nd floor. The universitywide simulation center has occupied the first floor of the CON building since approximately 2017; upon completion of the new MUSC Simulation Center at the Colbert Library this summer, this space will be returned to the CON. The primary goal of the renovation is to increase student learning space to manage current enrollment, as well as increase student enrollment in academic programs, particularly the on-campus ABSN program.

### OTHER BUSINESS

In other business, the 16-member MUSC/MUHA board also voted to

approve the following items:

- A lease amendment for 61,645 square feet of clinical and office space located at 2001 Laurel Street, Columbia. The purpose of this amendment is to extend the lease term for an additional six months for MUSC Health Heart and Vascular.
- Renewal of the lease for 2,316 square feet of office space located at 52 Courtenay Drive, Charleston. The purpose of this lease is to continue to provide office space for Psychiatry & Behavioral Sciences.
- This lease renewal is for 9,000 square feet of space located at 1001-B Michigan Avenue, Charleston. The purpose of this lease is to continue to provide space for MUSC Children’s Day Treatment Program.
- This lease renewal is for 7,962 square feet of office space located at 20 Ehrhardt Street, Charleston. The purpose of this lease is to continue to provide temporary office and swing space for assignment by the MUSC Executive Vice President of Finance & Operations.
- This lease renewal is for 75,018 square feet of office and warehouse space located at 4295 Arco Lane, North Charleston. The purpose of this lease is to continue to provide space for MUSC Business Services which includes the University Records Center, Warehouse Operations, University Press and University Surplus.

The MUSC/MUHA Board of Trustees serves as separate bodies to govern the university and hospital, normally holding two days of committee and board meetings six times a year. For more information about the MUSC Board of Trustees, visit [academicdepartments.musc.edu/leadership/board/index.html](http://academicdepartments.musc.edu/leadership/board/index.html).

### Purses for Premies event on April 15 at MUSC SJCH

The annual Purses for Premies event will take place from 11 a.m. to 3 p.m., at MUSC Shawn Jenkins Children’s Hospital, Room 7010.

All proceeds benefit the March of Dimes.



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# Hollings Cancer Center director receives AACR distinguished award

By DAWN BRAZELL

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Raymond N. DuBois, M.D., Ph.D., received the American Association of Cancer Research (AACR) Distinguished Service Award during the opening ceremony of the 2022 AACR convention on April 10.

DuBois, who is director of MUSC Hollings Cancer Center, AACR past president and president and chair of the AACR Foundation, said he was surprised and honored to receive the award. Having been a member of the organization since 1991, DuBois said he has benefited from its strong network of cancer scientists and exposure to the latest in cancer research developments over the past three decades.



**DuBois**

Philip Greenberg, M.D., AACR president elect and head of the Program in Immunology Clinical Research Division at the Fred Hutch Cancer Research Center, presented the award to DuBois. The award recognizes people whose extraordinary work has exemplified the AACR's mission to prevent and cure all cancers through research, education, communication, collaboration, science policy, advocacy and funding for cancer research.

"Dr. DuBois is a physician scientist and administrator with far-reaching expertise in basic translational and clinical research. His innovative work, including the use of nonsteroidal, anti-inflammatory mediators for the prevention of colorectal cancer has made him an international leader in the field of early detection, interception, and prevention of the disease."

Greenberg also cited DuBois' exceptional leadership in the scientific community that has garnered national and international acclaim. "The AACR has benefited enormously from his time and expertise. Since he joined AACR more than 25 years ago, he has served in many critical leadership roles, including as AACR president, as a member of the board of directors and as an editor in chief of the AACR Journal of Cancer Prevention Research. For the past eight years, he served as the president and chair of the AACR Foundation Board of Trustees, and during that time, he transformed AACR's ability to fund the pursuit of our mission."

DuBois, in his acceptance speech, recognized the impact his various roles with AACR has made on his career. "This has been and continues to be a crucial component of my professional life as a career cancer researcher," he said. "This organization provides many



*Photo Provided*

**Dr. Raymond N. DuBois delivers his acceptance speech after receiving the Distinguished Service Award during the opening ceremony of the 2022 AACR convention on April 10.**

ways to meet other cancer scientists worldwide, connect to the latest advances in cancer medicine and help develop the best treatments from the more than 200 diseases that we call cancer."

Celebrating its 115th anniversary this year, the AACR was founded in 1907, when a cancer diagnosis was essentially a death sentence. "Nobody understood why human cells became cancer cells. They didn't understand how they could evade the immune system, and ultimately take over our healthy organs. One hundred and fifteen years later, a deep and comprehensive understanding of cancer remains elusive, but we know so much more than we did back then."

DuBois said the AACR has been invaluable in a sea change that has happened in how cancer is perceived and treated and that he has been privileged to contribute to the demystification of what now is seen as a complex collection of diseases.

"To have this kind of impact is hard to achieve in isolation. The AACR has opened the door for me to attend some of the most enlightening research conferences worldwide and meet the best and brightest researchers and advocates on the planet in cancer research," DuBois said. "The various roles in the AACR and the foundation that I've assumed have given me

insight into the ever-changing waves of politics, funding, medical advances and research breakthroughs, as I've run my own lab and served in leadership positions at a range of academic institutions."

Greenberg noted many of DuBois' accomplishments, including being recipient of the Dorothy P. Landon AACR Cancer Research prize for translational cancer research, the Distinguished Achievement Award from the American Gastroenterology Association, the AACR Richard and Linda Rosenthal Foundation Cancer Research Award and the AACR Margaret Foti Award for Leadership and Extraordinary Achievements in Cancer Research.

DuBois also is a member of the National Academy of Medicine and a fellow of the American Association for the Advancement of Science, the American Gastroenterology Association and the Royal College of Physicians. He was elected as a member of the inaugural class of fellows of the AACR Academy in 2013. DuBois recently was appointed executive chairman of the Board of the Mark Foundation for Cancer Research.

"Even though Dr. DuBois will be stepping down from his role as president of the AACR Foundation Board of Trustees this year," Greenberg said, "his forward focus and guidance will continue to propel AACR toward its goal of preventing and curing all cancers."

# Exercise is medicine at the MUSC Wellness Center

By CINDY ABOLE  
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If there's one positive takeaway from the past two years of the coronavirus pandemic, it's recognizing the importance of physical activity and exercise as an antidote for managing pandemic stress.

As people emerge from more than two years of self-quarantining, lockdowns and pandemic isolation, they're breaking away from periods of inactivity, anxiety and a sedentary lifestyle that puts them at risk for obesity, cardiovascular disease, depression and a number of other chronic health conditions.

A 2020 study on physical activity and sedentary behavior during the pandemic reported that regular physical activity improves a person's mood and the body's immune function while reducing stress — something many of us need right now.

The pandemic pushed a transformation in the health club industry that, like other businesses, encouraged innovation, change, flexibility and a need for more options to meet people's changed habits and behaviors.

At MUSC, the crew that manages fitness and wellness did not miss a beat. Everyone stayed committed as they navigated through pandemic restrictions, conflicting demands and changing campuswide COVID guidelines and directives to continue the center's mission to foster healthy lifestyles and promote wellness across campus.

Despite MUSC's Wellness Center facility being temporarily closed during the early months of the pandemic, the center's team responded and found creative ways, using technology and resources, to connect people and engage them in virtual workouts and yoga sessions that were made available to members, employees, students and especially MUSC Health care team members.

In December, Dustin Jackson was hired to replace Janis Newton, long-serving director of the Wellness Center, who retired. An Atlanta native, Jackson came to MUSC with years of experience managing the University of Georgia's Student Recreation Center, the second biggest college recreation facility in the U.S. Most recently, he worked with veterans and staff as the Southeast manager of the Physical Health and Wellness



Jackson



Photo by Jonathan Coultas

## Medical students compete during the 2021 College of Medicine Cup.

program at Wounded Warrior Project in Atlanta, Georgia.

Since Jackson's arrival at MUSC, he's focused on managing the center's operations with his team and responding to member's needs, popular fitness trends, industry demands and the changes that go along with all of it.

The team, he explained, relies on information gleaned from member surveys, best practices and collected data to determine where they are and where they want to be. He's open to expanding programs and services to help current and future members to achieve their social, emotional, spiritual and physical health goals.

Gigi Smith, Ph.D., R.N., associate provost, believes that MUSC has a dual responsibility in the community — providing the best health care and influencing wellness among South Carolinians, especially those living with illnesses and chronic health conditions. "If we don't do both, we won't have the type of healthy community that all of us are striving for," Smith said.

"MUSC's Wellness Center is truly unique," said Jackson, comparing it to recreational sports centers on other college and university campuses. "There's a lot of things that MUSC offers that a person won't see, such as specialized clinical wellness programs for people living with Parkinson's disease, breast cancer survivor programs and clinical rehab programs, that an academic health science center like ours is able to offer. It's what attracted me to come here."

Another draw for Jackson is the community collaboration and partnerships. Many university and college fitness facilities and gyms cater specifically to the institution — its students, faculty and staff. The Wellness

Center has been actively engaged with training and working with other health clubs and city, county and community programs, such as the Healthy Charleston Business Challenge, Credit One Charleston Open Tennis Tournament (formerly the Family Circle Cup), Cooper River Bridge Run Expo and many other projects.

With a location on the west side of the Charleston peninsula, it's typically a convenient walk, jog or bike ride away for downtown residents as well as students and professionals.

"MUSC's Wellness Center focuses on the Charleston community, which translates to variability in what we can offer and meet the needs of people at different times of their lives. To me that's exciting. There's still opportunities that we can tap and explore — the sky's the limit in what we have to offer," said Jackson.

The center features a variety of large-group classes from yoga, cycling, strength conditioning and cardio workouts to Boot Camp, H.I.T.S. program, pilates, and Health Works cardio. The center also offers small-group programs like Pilates, PowerUp Cardio Quest and Next Wave, a science-based fitness training program, in addition to personalized training and nutrition counseling.

The multi-level 80,000 square-foot facility offers a cardio room, newly renovated free weight area; junior Olympic-sized indoor pool; group exercise studios; cycling-spin studio; boxing studio; multipurpose gym; paddle and racquet courts for racquetball, squash, tennis and pickleball; indoor and rooftop running tracks; and locker room areas.

See **EXERCISE** on page 9



## MEET WANDA

**Wanda Player**

**Department; Years at MUSC** CVICCU–MUSC Health Florence; 31 years

**How are you changing what's possible at MUSC** I challenge myself to earn the trust of each patient and their family. I make every effort to educate, answer questions, lessen stressors and meet individual needs. This helps me become a better advocate for my patients.

**Family and pets** Husband, Glenn (32 years); daughters, Logan (Zac) and Rachel; pets, Shorty, a handsome dachshund, and three pups, Murphy, Charlie and Sake

**Favorite spring memory**

I love spring and summer. I spend time outdoors in my plant and vegetable gardens.

**Favorite place in the world** I love spending time along the ocean. I now have a new love of beaches along the West Coast. My daughter lives in California and I visit as often as possible. One of my favorite areas is San Diego and La Jolla Beach.

**Words of advice** I was given a book, "The Dash." It's a poem about making a difference in your life. My hope is to make a difference with my time – the dash of time between birth and death.



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For more information or if you have questions about OurDay, visit <https://horseshoe.musc.edu/everyone/ourday> or email [ourdayquestions@musc.edu](mailto:ourdayquestions@musc.edu).

*Editor's note: OurDay Change Champions are part of a group of 50+ MUSC employees from across the enterprise who have volunteered to advocate for the new platform and share information to their teams.*

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Email Emily at [ferrelle@musc.edu](mailto:ferrelle@musc.edu) with any questions about the event.

# MUSC doctors first at academic medical center to perform ‘game-changing’ new heart failure device

BY LESLIE CANTU  
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Two doctors at MUSC Health are the first at an academic medical center and only the second in the world to use a new, minimally invasive procedure to implant a heart failure treatment device – and, in an interesting turn of events, they’re both women in heavily male-dominated specialties.

Vascular surgeon Jean Marie Ruddy, M.D., is principal investigator at the MUSC site for the trial of this new implantation method for Barostim. Cardiac electrophysiologist Anne Kroman, D.O., Ph.D., is site co-principal investigator of the BATwire percutaneous implant study, using the Barostim Neo System.

Barostim won breakthrough device approval from the U.S. Food and Drug Administration in 2019 following successful trials that were led by MUSC Health cardiologist Michael Zile, M.D. The device uses electrical impulses to stimulate the nerve that regulates blood pressure, inducing the blood vessels to relax.

“When the blood vessels out in the periphery are relaxed, that makes for less work for the heart,” Ruddy said.

Although the device can’t reverse heart failure, it can improve patients’ quality of life. It’s intended for patients who are in that middle ground of not getting sufficient benefit from medication but not sick enough for a heart pump or heart transplant, said cardiologist Ryan Tedford, M.D., section chief of heart failure, medical director of cardiac transplantation and professor in the College of Medicine.

His patient became the first at MUSC Health to undergo the new method of implantation on Thursday.

The original method of implantation

required a vascular surgeon to make an incision in the patient’s neck to insert the electrode. But in a “feat of engineering,” the new method being tested would enable the device to be implanted through a wire, Ruddy said. It’s similar to how pacemaker wires are currently inserted, Kroman added.

“This is what we call a ‘first-in-man study.’ It’s a new way to deliver the same technology but to save the patient from an incision in the side of the neck,” she explained.

Instead, using ultrasound, the doctors looked for the region of the blood vessel where the appropriate nerve is situated, then advanced a needle into place, through which they guided the wire. The entire procedure took about an hour and a half. It’s expected that this will become an outpatient procedure, but for the purposes of the trial, patients must be hospitalized overnight.

Ruddy said the patient did well and returned home Friday.

Patients who’ve previously had the device implanted have seen their quality of life improve, Ruddy and Kroman said. Typically, before the procedure, patients are short of breath, even from walking around, and may have given up favorite activities – Ruddy mentioned a patient who was eager to return to fishing.

“They’re often able to get back into those activities because their energy level is improved. And again, the energy part really goes back to – if you relax the blood vessels, the heart does not have to work so hard. And so therefore that feeds forward to the patient having less fatigue, a little bit more energy and, really, we’re talking about quality of life,” Ruddy said.

Tedford said there are large numbers of patients who could benefit from this type of treatment, either because they’re not sick enough for more serious interventions or because they don’t meet



*Photo Courtesy of CVRx*  
**Drs. Jean Marie Ruddy, left, and Anne Kroman perform the new method of implanting the heart failure device.**

the criteria for those surgeries.

CVRx, the company that created Barostim, expounded.

“There are millions of patients living with heart failure with reduced ejection fraction in the U.S. who may be able to benefit from Barostim. This new implantation method could eventually be used for most patients who may benefit from Barostim and represents a step

*See **DEVICE** on page 11*



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# Study of NASA, ESA and Russian space agency data explores brain health on extended missions

BY HELEN ADAMS

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Scientists from the U.S., Europe and Russia are part of a team releasing the results of a large collaborative study involving the effects of long duration spaceflight on the brain. It appears in the Proceedings of the National Academy of Sciences.

The researchers found that while all of the astronauts and cosmonauts they studied had a similar level of cerebrospinal fluid buildup in the brain, along with reduced space between the brain and the surrounding membrane at the top of the head, there was a noteworthy difference when it came to the Americans. They had more enlargement in the perivascular spaces in the brain, passages that serve as a cleaning system during sleep. That's

something the researchers say warrants further investigation.

Donna Roberts, M.D., a neuroradiologist at MUSC who helped lead the study, said a challenge when it comes to exploring the effects of spaceflight has been that there aren't many people in the U.S. who have traveled to space. Combining information about NASA astronauts with that of Russian cosmonauts and astronauts from the European Space Agency gave the study depth.

"By putting all our data together, we have a larger subject number. That's important when you do this type of study. When you're looking for statistical significance, you need to have larger numbers of subjects."

The study focused on 24 Americans, 13 Russians and a small, unspecified number of astronauts from the ESA.

It used MRI scans of their brains before and after six months on the International Space Station to evaluate changes in the perivascular spaces.

Lead researcher Floris Wuyts, Ph.D., a professor at the University of Antwerp in Belgium, put the scope of the project in perspective. "I think it is one of the largest studies on space data, and for sure, one of the very few studies with NASA, ESA and Roscosmos data. It comprises data of almost 10% of all people who went into space." Roscosmos is the Russian space corporation.

Fellow researcher and neuroscientist Giuseppe Barisano, M.D., Ph.D., who works at the University of Southern California, said they looked for differences between the crews. "And in this analysis, we found an increased volume of fluid-filled channels in the brain after spaceflight that was more prominent in the NASA crew than in the Roscosmos crew."

Roberts explained what that might mean. "An important implication of our findings is that the volume of fluid-filled channels in the brain of astronauts is linked to the development of the

spaceflight-associated neuro-ocular syndrome, a syndrome characterized by vision changes and whose mechanisms are still not completely clear."

But space physiologist Elena Tomilovskaya, Ph.D., of the Russian Academy of Sciences, said further study is needed to determine if there are clinical implications for future flights. "We need to understand how specific microgravity-countermeasure usage, exercise regimes, diet and other factors may play a role in the differences we found between crews."

Roberts agreed. "It is important not to speculate about pathology or brain health problems at this time. The observed effects are very small, but there are significant changes when we compare the post-flight scans with the preflight scans," she said.

The idea for the large study came about as the scientists gathered at annual meetings held by NASA and ESA. "Independently, we had previously reported similar changes in space crews at post-flight brain MRI, including

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# Campus to celebrate culture of innovation with Innovation Week events

By REECE FUNDERBURK

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The fourth annual Innovation Week at MUSC will kick off on April 25 and with it comes the return of the live version of the event. Hosted by the Office of Innovation, the event is designed as a week-long celebration of MUSC's culture of innovation designed to inspire and empower the MUSC community to innovate.

"Innovation Week is a visible and tangible representation of the value that MUSC places on innovation," said Jesse Goodwin, Ph.D., chief innovation officer at MUSC. "It's meant as both a celebration of our accomplishments and as a source of inspiration of our future potential."

Festivities will begin on Monday, April 25, at the Urban Farm. There, the first 50 attendees can pick up some Innovation Week gear and a ticket for a King of Pops treat or bag of kettle corn that will be offered during the Innovation on the Greenway event scheduled for the next day.

Afterward, the week will continue with back-to-back sessions in the Bioengineering Building, Room 112, and will include opening remarks from MUSC leadership as well as awards and recognition for participating



Photo by Sarah Pack

**Dr. Stephanie McGowan presents her idea at the MUSC Shark Tank event during 2019 Innovation Week.**

students and faculty members.

Winding up the day, students will be pitching their ideas for research grants in a virtual session that is open to all at 2 p.m.

A staple of Innovation Week, the Charleston poster session will be held on Tuesday from 8 a.m. to 5 p.m. on the Greenway, where visitors will review ideas submitted by MUSC employees and students and select which should be evaluated at the Shark Tank event on Thursday, April 28.

In addition to the Charleston poster session, for the first time, MUSC's Regional Health Network (RHN) sites will host their own poster sessions. Florence and Marion will do a combined event in Florence on April 25. Similarly, Lancaster and Chester will host theirs in Lancaster on April 27.

"It's important to see MUSC as a system and for us to be inclusive when working to build a culture that expands off of the peninsula," said Goodwin. "I can't wait to see the ideas and projects pitched by the Florence, Marion, Lancaster and Chester teams."

An MUSC NetID is needed to view and vote, and voting closes promptly at 5:00 p.m.

While Lancaster and Florence host their own poster sessions on Wednesday, an interactive discussion on artificial intelligence in biomedical equipment will be held in the Drug Discovery Building from 1 to 2 p.m.

See **INNOVATION** on page 11

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EXERCISE *Continued from Page Four*

“We want to help people to realize that their health is important and a priority in their lives, and that it’s good to actively exercise. A healthy lifestyle leads to better outcomes,” he said.

Coming out of the pandemic, the center’s focus is on rebuilding membership. With the uncertainty of the pandemic and members finding new fitness routines, the center experienced a drop in memberships. Today, as health clubs and gyms have fully reopened and people are returning to their routines, the center is offering a variety of membership options that can be purchased online or in person. Digital registration is available to community members and employees to purchase monthly and annual memberships. Other options include a three-month membership and an Xpress membership (designated times for midday and evening visits), plus a one-time enrollment fee.

MUSC’s Wellness Center has consistently been voted among the Best Health Clubs in Charleston City Paper’s



Photo by Mark Staff Photography

**The MUSC Wellness Center team includes certified trainers, wellness and membership staff and other support personnel.**

annual “Best of Charleston” contest. In addition to new equipment, programs and a dedication to maintaining a top-ranked facility, in the Tri-county area, Jackson and his staff also take pride in ensuring that the facility is a safe and secure environment for its members and

visitors.

Members access the facility using a secure scan card or badge at a one point-of-entry location that’s always staffed. In addition to video security, staff members also actively round the facility throughout the day to provide immediate

assistance and guidance. In addition to the team’s fitness certifications and expertise, the 25-member team is also CPR, automated external defibrillator certified and Title IX harassment-trained so as to manage and respond to all types of emergencies.

The team launched a new MUSC Wellness Center Magazine this past December. The biannual magazine is a communications tool that outlines new programs, upcoming activities, personalized wellness stories and need-to-know information for members and the community. According to Jackson, the next issue, which will be distributed later this month, will feature a free one-time-use guest pass that anyone can redeem.

Jackson is excited that the center is offering this opportunity. “We really want to get people to come into our facility and see and experience it for themselves. Once they come through the door, they’re going to love it here,” he said.

For membership information, personal training and programs, call 843-792-5757 or visit <https://web.musc.edu/resources/health-and-wellness/wellness-cent>.



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**SPRING SEASON**

This is the word search puzzle for the third week of April.  
Find the words hidden vertically, horizontally, diagonally, and backwards.

**WORDS**

- BIRTH

BLOOM

BREEZE

BULBS

BUNNY

BUTTERFLY

CHICK

CROCUS
- DAFFODIL

EGGS

FLOWERS

GREEN

GROW

HATCH

HYACINTH

LAMB
- MARCH

NEST

PUDDLES

RAIN

ROBIN

SEASON

SHOWERS

SPRING

L	M	A	H	B	L	I	D	O	F	F	A	D	S	F	K	I	K	K	H
S	S	B	T	Z	P	O	S	K	E	I	Y	R	K	C	K	C	B	B	Y
S	E	T	R	R	W	B	M	I	I	T	W	S	U	H	D	D	I	L	G
E	A	M	I	S	E	L	D	D	U	P	K	P	N	S	A	C	S	H	D
M	S	P	B	Y	M	D	F	B	K	N	W	O	H	B	Y	G	Y	E	C
Y	O	T	E	L	O	O	L	K	L	R	R	A	U	U	G	T	U	F	Y
H	N	N	N	S	O	P	O	O	N	H	T	L	U	E	P	T	U	N	C
G	R	M	A	A	L	O	W	T	L	C	B	S	F	S	F	I	N	D	D
B	R	I	K	Y	B	B	E	R	H	S	P	E	D	C	E	U	Y	T	N
R	R	O	E	A	K	S	R	Z	D	R	T	Y	N	Z	B	H	A	B	A
T	K	K	W	E	H	Y	S	Y	I	U	U	T	H	H	B	A	U	E	S
M	G	G	Y	O	D	K	C	N	E	C	T	T	D	A	G	T	R	G	D
K	I	B	W	Z	M	R	G	H	H	Z	H	B	Y	R	T	T	S	E	N
N	S	E	H	R	I	D	T	Z	H	B	E	F	E	E	M	P	P	R	K
F	R	K	O	T	C	N	G	E	Y	T	G	E	R	S	O	A	K	H	D
S	N	B	B	Y	I	W	C	Z	D	R	N	F	R	A	U	W	R	U	O
F	I	P	L	C	U	N	L	Y	A	U	L	N	N	B	G	C	F	C	H
N	T	O	A	A	E	K	K	I	U	Y	U	W	O	H	W	H	O	U	H
G	T	Y	M	I	M	U	N	P	A	U	C	R	A	P	B	N	C	R	C
K	H	W	S	D	I	B	C	P	S	C	U	F	N	Z	G	G	W	Z	C

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**SUMMIT** *Continued from Page One*

discrimination that we face that leads to these increased risks. That is why it is so important to continue to advocate — for all of us, and for our most vulnerable.”

She also talked about the importance of conducting more research to understand the health care needs of the LGBTQ community more fully, noting that those needs differ even within the community. One group that has not received as much attention is the intersex community, she said.

“I’ve had the opportunity to hear from the intersex community and the stakeholders. It was quite enlightening. We tend to have a more medical model for the intersex community, as opposed to a biopsychosocial model, and I think we need to hear from the community about their health care needs, to adjust our standards of care, not just looking at specific medical issues but approaching it more holistically,” she said.

“We need to do that across the alphabet soup and the wonderful rainbow of our community to make sure we have research and data about all aspects of our community.”

People going into health care and related fields need to be educated about the needs of the community and about ways to signal that LGBTQ members are welcome. And the workforce needs to realize that they will be serving and interacting with members of the LGBTQ community, whether or not they realize it, said Ilan Meyer, Ph.D., distinguished senior scholar of public policy at The Williams Institute.

He developed a model of minority stress that shows how living with the stigma, discrimination and even internalized bias against LGBTQ people can lead to poor health outcomes. At the same time, strong identification with the minority group can ameliorate this stress, as the tight bonds provide more resources for coping.

Meyer highlighted an instance when he spoke to a group of social work students.

“I asked the students, who were graduating social workers, ‘How many of you expect to see LGBT people?’ Maybe there were five hands out of 50 — because they heard, ‘This is what I want to specialize in.’ But what I told them,

and what I’m telling you — you’re all going to see LGBT patients.

“Some of them may not be able to tell you they’re LGBT, and some of them will tell you. But you need to be prepared. This goes from the physician to the nurse to the staff to the administrative staff.”

Chase Anderson, M.D., a child and adolescent psychiatrist, shared his own life story in talking about how sexual minority status interacts with racial minority status. Minority stress is socioculturally based and is additive, he said.

“The way I like to think about it is imagining one papercut. You get one in a day, and it heals by the end of the day, and you think, ‘OK, that was annoying. It stings, but I’m fine. Imagine getting a hundred paper cuts per day. You have no idea where the paper cuts are coming from eventually. You have no idea how to staunch the wounds, and you have no idea how to heal,” he said.

He spoke of the microaggressions he and others encountered in medical school and residency — for example, someone telling him the only reason he was elected class president was because he was Black and gay.

“I had to remind that person that I was the only person who gave a PowerPoint presentation and wrote a full speech,” he noted.

He also called attention to senior members of the LGBTQ community.

“Elderly populations also experience minority stress,” he said. “There are a lot of LGBTQ+ Americans who, when they get older, even if they were out when they were younger, will go back in the closet because they feel unsafe being out if they have to go live at home with family members or if they have to go to a skilled nursing facility, because many of them have heard horror stories about how LGBTQ+ people are treated.”

Tonia Poteat, Ph.D., PA-C, an associate professor at the University of North Carolina at Chapel Hill, provided additional context for the intersection of race and sexual minority status, focusing on disparities in timely access to care for breast cancer.

Poteat, who worked as a physician assistant for 15 years and then went back to school to earn her doctorate, because both she and her patients had questions

that no one seemed to be answering, looked into studies of breast cancer care and found a dearth of information about breast cancer care for Black sexual minority women — or even for Black women overall.

She set about designing a study in cooperation with several advocacy and resource groups so that she could be sure to get enough respondents to have a good study size.

She found that Black sexual minority women experienced five times greater delays in accessing care than white heterosexual women. Reasons for the delays included structural barriers, such as cost or transportation; distrust; embarrassment; institutional barriers like an inability to reach a health care provider; and even the feeling that seeking care was pointless.

Even institutional resources intended to help patients may become a barrier if thought isn’t put into them. For example, one lesbian breast cancer patient reported that she asked about a support group for her partner but was told that the support group was for husbands.

Poteat said she was surprised by how much stigma and shame around a breast cancer diagnosis was revealed by her study. She mused that the “strong Black woman” stereotype might have something to do with it.

“For this study population, what I saw in the qualitative data — and even among my friends — it’s wrapped up in this notion of the Black superwoman complex. We are supposed to always be strong. Always be sassy. Always make a way out of no way,” she said. “That trope really makes it challenging to say, ‘I have a life-threatening condition that requires a great deal of care and support, and I’m going to need rides to the doctor, somebody to bring me food, somebody to take care of my children, somebody’s shoulder to cry on. I might need financial support.’

“All of those things require someone to be vulnerable enough to express a need, and Black women in this society are not given permission for that.”

Gauging by the sheer number of grateful and positive comments that streamed in over two days, the summit was critically needed, and, it was an

enormous success.

To say that Chase Glenn, director of LGBTQ+ Health Services and Enterprise Resources and host of the inaugural summit, was proud of the all-encompassing impact of the event would be an understatement.

“I simply could not be more pleased at the turnout for the event and especially the incredible energy surrounding every conversation. To have that many thought leaders in one place leaves me speechless. We left the last session on such a high note. Dr. Willette Burnham-Williams’ parting words were both meaningful and inspirational, charging each of us to take back what we’d learned and to be an integral part of the solution. Now, we move forward putting all of this into practice.”

Glenn added that this summit was an important opportunity for MUSC to shine and lead.

“We created something special that brought together people not only from around the state but from around the world. Wow! What an event. It was truly better than I ever could have imagined. This certainly was a jumping off point to build something even better for the future.”

**SPACE** *Continued from Page Seven*

enlargement of the cerebral ventricles. We discussed our findings and realized how valuable it would be to perform a joint analysis of our data. I would like to point out that Dr. Wuyts, in particular, was instrumental in organizing our group, which met regularly for two years to carry out this analysis,” Roberts said.

“I believe it highlights the importance of international cooperation in understanding the effects of long-term spaceflight on the human body. In fact, we believe international cooperation in space medicine research is essential to ensure the safety of our crews as we return to the Moon and on to Mars.”

The study, “The effect of prolonged Spaceflight on cerebrospinal fluid and perivascular spaces of astronauts and cosmonauts,” was funded by the Russian Academy of Sciences, NASA, ESA, the Belgian Science Policy Prodex, FWO Flanders and the National Institute of Mental Health at the National Institutes of Health in the U.S.



**INNOVATION** *Continued from Page Eight*

For those looking to decompress, Thursday will offer the “Stress Less Bash,” at the Urban Farm, where all faculty, staff and students can drop by to enjoy live music, games, stress-relieving activities, refreshments and more.

Thursday will also mark the return of the live hosting of Shark Tank. This fun-filled annual event features teams that have been chosen as finalists pitching their ideas to a panel of MUSC’s executive leaders for an opportunity to win bragging rights and funding to support the development or scaling of their concepts. The finalists are selected from the submissions to the Innovation Week poster session. After going virtual last year, the event – and the mascot – will be in the Storm Eye Auditorium from 2 to 4p.m.

Meanwhile, the RHN sites will be hosting their own Shark Tank events for the first time as well. Florence and Marion will host a combined event at the Florence Floyd Conference Center,

from 10 a.m. to 12 p.m., on April 27. Lancaster and Chester will also combine for their own session at the Lancaster Medical Theatre, from 2 to 4 p.m., on April 27.

The week will conclude on Friday with a virtual keynote address by Jeff Borden, chief academic officer of D2L, a global software company that created the online learning platform Brightspace. Attendees will gain a better understanding of how to make tomorrow’s learning start today as we build “Education 3.0” and create an atmosphere for better learning year after year.

“I believe the week and its events are important demonstrations of MUSC’s commitment to building a culture of innovation,” said Goodwin. “The poster session is a way for our MUSC family to share their ideas and existing work on solving pain points in a manner that garners attention by colleagues and leaders. Shark Tank is a fun way to show that MUSC’s most senior leaders are seriously committed to considering and supporting ideas being brought forth by those that work here.”

**UPDATE** *Continued from Page One*

feel it in my bones. But I have a feeling that it may not be that bad.”

He pointed to several factors behind that assessment: what’s happening in Europe, seasonal patterns in the Charleston area, vaccination and booster rates, the level of immunity from Omicron and the threat of new variants.

What’s happening in Europe  
While we enjoy low case numbers, other places aren’t as lucky. Sweat pointed to parts of Europe. “France is at 205 cases a day per 100,000 people and growing. When you see that combination of a pretty healthy growth rate and a large number, it’s especially bad.”

And the U.K. recently hit its highest numbers of the pandemic.

We have sometimes echoed trends in Europe. Will that happen again? It’s possible, Sweat said. “We tend to lag Europe, frequently by weeks.”

**SEASONAL PATTERNS**

Sweat’s team, which has been tracking COVID since the early days of the pandemic, has noted four clear surges so

far: the first in the summer of 2020, the second the following winter, the third in the summer of 2021 and the fourth the next winter. Will this summer break the pattern?

“We may see a surge with lower numbers – but not the kind of hospital hit we’ve had from COVID in the past. That’s my gut.”

Vaccination and booster rates  
Something that could help prevent that hospital hit: increasing the rate of vaccinations and booster shots. In South Carolina, the numbers aren’t great on that front. “About 59% of the total population has received two doses of vaccine. That’s below the national average. It’s almost frozen in amber. I mean, it’s hardly going up at all,” Sweat said.

“And just 23% of people have had three doses or more. It’s crucially valuable to get boosted. That continues to have strong effects, including against BA.1 and BA.2, Omicron and its subvariant.”

Is it worth getting a second booster shot? Sweat gets asked that a lot. “I’ve had every family member call me to ask

**DEVICE** *Continued from Page Six*

forward in the evolution of the therapy to be even more simple to implant.”

Ruddy agreed that it potentially offers options to patients and their doctors.

“I think that it opens up our opportunities to treat patients as individuals,” she said. “And so I believe there will still be patients who need to have the surgical implant, but this allows us to select patients with the appropriate anatomy to offer them a less invasive implantation of the device. As many fields have moved toward patient-specific decision-making, I think this is another example of how we can apply that to management of heart failure patients.”

And Kroman noted the significance of two women performing the procedures. About 14% of vascular surgeons are women, and 10% of cardiac electrophysiology fellows are women. She hopes that her and Ruddy’s visibility will encourage more women and girls to pursue these fields.

“It’s unique and it’s nice to have two women being co-principal investigators on such a new and exciting project with new technology,” Kroman said.

Electrophysiologist (EP) Jeffrey Winterfield, M.D., the section chief

me, ‘What should I do?’ I often tell ‘em, ‘Look, you know, it could protect you against this BA.2 if it’s coming along. If you’re a little older and have some health issues – diabetes, for example, there’s not much downside. But the data needs to be looked at more. We need more time to know about the durability of the fourth shot.”

**OMICRON IMMUNITY**

We do know that a lot of people were recently infected with Omicron. “There’s been a hodgepodge of reactions to COVID. Some people jumped on the vaccine right away and got boosted. A lot of people didn’t, and a lot of people got infected. I read 43% of the U.S. population likely got BA.1.”

That could help slow the virus’ spread here, Sweat said.

**THREAT OF NEW VARIANTS**

A new variant called OmicronXE

*“This is brand new science and a potential ‘game-changer’ in terms of how we manage arrhythmias and heart failure.”*

**Jeffrey Winterfield, M.D.**

for cardiac electrophysiology, said this advancement articulates a number of momentous firsts, and he is ecstatic that MUSC Health is a world leader in bringing this innovative procedure to the fore.

“Being among the first to implant a novel device meant to modulate the heart’s innervation from the autonomic nervous system is groundbreaking work,” he explained. “This is brand new science and a potential ‘game-changer’ in terms of how we manage arrhythmias and heart failure. The team implanting the device includes both a woman surgeon and a woman EP, unusual in and of itself, beyond the nature of this cutting-edge procedure. This is truly significant from a number of important perspectives.”

has shown up in several hundred patients in the U.K. It’s a mix of the original Omicron strain, BA.1, and its subvariant, BA.2. It’s unclear what effect that emerging variant will have on the pandemic.

Meanwhile, Sweat noted a huge spike in cases in one part of Africa. “Botswana went from almost nothing to 258 cases per day, per 100,000 people in a single week. Is that another variant? That’s what I would want to know. And variants seem to come out of that region a lot.”

For now, he’s glad to see the low case numbers locally. His team classifies COVID’s impact on the Charleston area as “minimal” right now, down another 9% in a week. But the MUSC scientists will keep tracking the virus – whatever direction it takes. “I think there’s high uncertainty. It could also stay low for a long time, but at some point we’re going to get another wave.”

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