

Medical University of South Carolina and MUSC Health Board of Trustees Annual President's Report

August 2021



ACADEMICS: RESEARCH



- James S. Krause, Ph.D., and the Spinal Cord Injury (SCI) and Multiple Sclerosis (MS) outcomes team
 received notification of three new programmatic grants totaling over \$5.6 million from the Agency
 for Community Living and the National Institute on Disability, Independent Living, and Rehabilitation
 Research (NIDILRR). These grants will extend their longitudinal aging studies of SCI and initiate a study
 opioid on epidemiology and risk assessment.
- Jacobo Mintzer, M.D., was recently awarded a 3-year \$15.6 million grant from the National Institute on Aging. The goal of the project, titled Life's End Benefits of Cannabidiol and Tetrahydrocannabinol (LiBBY) Trial, is to develop safe and effective approaches for the treatment of hospice care-eligible, agitated subjects suffering from Alzheimer's Disease or other types of dementia.
- MUSC will be a new site for the NIH i-Corp training program designed to assist faculty startup companies successfully navigate the early steps of company formation and product development.
- Patrick M. Woster, Ph.D., was awarded \$2M from the National Institutes of Health (NIH) to study the epigenetic mechanisms underlying periodontal disease. These studies, conducted in collaboration with Chad Novince, Ph.D., D.D.S., represent a significant new collaborative effort between the College of Pharmacy (COP) and the College of Dental Medicine (CDM).
- The MUSC Drug Discovery Core, housed in the COP, now offers high-throughput screening, compound synthesis and lead optimization services for MUSC Faculty.
- MUSC Hollings Cancer Center's HPV Initiative announced that for the first time, South Carolina's rates are on par with the overall national HPV vaccination rates (representing an 8% increase in vaccine initiation and 12% increase in vaccination completion).
- The Center for International Blood and Marrow Transplant Research (CIBMTR) reported that the
 MUSC Health Blood and Marrow Transplant (BMT) Program is among the top 10% of transplant
 centers that have exceeded predicted survival rates and one of only six that have achieved such
 excellence as a combined adult and pediatric program. Michelle P. Hudspeth, M.D., Associate Professor
 of Pediatrics, serves as Director of the Adult and Pediatric BMT Program at MUSC Hollings Cancer Center
 and the MUSC Shawn Jenkins Children's Hospital.
- Nancy Klauber-DeMore, M.D., College of Medicine (COM) Department of Surgery, member of
 the Hollings Cancer Center, and holder of the BMW Endowed Chair in Cancer Research, is the cofounder and clinical and scientific consultant for Innova. Innova Therapeutics, Inc., announced that
 the U.S. Food and Drug Administration has granted Rare Pediatric Disease Designation to IVT-8086
 for the treatment of osteosarcoma. This represents the first FDA-approved therapy for individuals with
 osteosarcoma in over 30 years.
- The Office for Victims of Crime (OVC) recently awarded a three-year, \$3.378 million grant to the
 National Crime Victim Research and Treatment Center in the Department of Psychiatry to continue the
 National Mass Violence Victimization Resource Center (NMVVRC). OVC established the NMVVRC in 2017
 to improve the nation's capacity to respond to mass violence incidents.

ACADEMICS: RESEARCH



- MUSC has enrolled >400 subjects in the Astra-Zeneca (AZ) COVID-19 vaccine trial.
 AZ reported early results from UK-Brazil data with overall 70% reduction in infection and no serious illness, but the data is even better with the half-dose then full-dose regimen. MUSC has two more vaccine trials in study startup.
- The MUSC-invented Guardian Needle TM was used clinically in MUSC's operating room the first time during an operation in December. The intraoperative monitoring needle is sold by RhythmLink ® International, LLC.
- The College of Health Professions ranked #4 in the nation for National Institutes of Health FY20 funding.
- A MUSC team, led by pediatric infectious disease physician, Allison Eckard, M.D., was the first in the nation to enroll patients with multisystem inflammatory syndrome in children (MIS-C), a rare but lifethreatening complication of COVID-19, in a trial of remestemcel-L.
- MUSC Department of Pediatrics was selected as one of approximately 100 sites across the world to
 do a Moderna COVID-19 vaccine trial in children between the ages of six months and 12 years. The
 trial is aimed to show the vaccine is effective and safe in children, and ultimately to help determine the
 correct dose for children.
- Susan Dorman, M.D., Professor, Department of Medicine, Division of Infectious Diseases, was recently awarded a 10-year, \$9.9 million contract by the CDC to run trials for the Tuberculosis Trials Consortium (TBTC, a collaboration of North American and international clinical investigators) and reported a novel four-month treatment regimen using rifapentine as effective for treating TB (May 6, New England Journal of Medicine). Shortening treatments increase compliance and prevent the spread of multidrug-resistant TB.
- Marc Chimowitz, M.D., Professor, Department of Neurology, has been named as the Principal
 Investigator on the Comparison of Anti-coagulation and anti-Platelet Therapies for Intracranial
 Vascular Atherosclerotic stenosis (CAPTIVA) trial. This large, multi-center clinical trial will be performed
 at sites in the NINDS-funded StrokeNet network.
- MUSC Hollings Cancer Center (HCC) investigators Nichole Tanner, M.D. (PI, pulmonology), and
 John Wrangle, M.D. (Co-PI, oncologist), received funding from the Veterans Affairs Lung Precision
 Oncology Program, to create a national network of sites with expertise in lung cancer screening and
 precision oncology clinical trials that can help facilitate similar research at smaller VA facilities, which are
 often located in rural areas.



- Melissa Hortman, Ed.D., Academic Affairs Faculty (AAF) Associate Professor, and Director of Instructional Technology assumed the role of Editor-in-Chief of The International Journal of Innovation in Teaching and Learning in Higher Education and was named Microsoft Innovative Educator (MIE) Expert for 2020-2021.
- Brandon Welch, Ph.D., was named MUSC Foundation for Research Development's (FRD)
 Innovator of the Year. Dr. Welch is the creator of numerous digital technologies including doxy.me, a telehealth platform widely used.
- Kathy H. Chessman, PharmD, was appointed Chair of the Department of Clinical Pharmacy and Outcome Sciences.
- Patrick M. Woster, Ph.D., Professor, Chair and SmartState® Endowed Chair in Drug Discovery,
 was inducted into the American Chemical Society Division of Medicinal Chemistry Hall of Fame.
- MUSC Office of the Provost held the virtual MUSC Faculty Awards and Recognition Ceremony on August 18, 2021. Winners included:
 - o Jesse Dean, Ph.D. Teaching Excellence: Educator-Lecturer
 - o DaNine Fleming, Ed.D. Teaching Excellence: Educator Mentor, Clinical-Professional
 - o Lisa Kerr, Ph.D. Teaching Excellence: Educator Mentor, Academic-Scholarship
 - o **Brian Houston, M.D.** Teaching Excellence: Developing Teacher
 - o Eric Meissner, M.D., Ph.D. Developing Scholar
 - o Kathleen Brady, M.D., Ph.D. Peggy Schachte Research Mentor
 - o **Dee Ford, M.D.** Population Health
 - o Andrew Eiseman, M.D. Outstanding Clinician
 - o Evert Eriksson, M.D. Outstanding Clinician
 - o Nagraj Kasi, M.D. Outstanding Clinician
 - o Douglass Norcross, M.D. Distinguished Faculty Service
 - o Cassandra Salgado, M.D. Distinguished Faculty Service
 - o Karen Wager, DBA Distinguished Faculty Service
 - o **Philip Hall, Pharm.D.** Commitment to Excellence in Interprofessional Education and Collaborative Practice
- Lacey MenkinSmith, M.D., a faculty member in our Department of Emergency Medicine, was recently named the OneWorld Health Educator of the Year.
- Hermes Florez, M.D., Ph.D., MPH, Chair of our Department of Public Health Sciences, has been recognized as one of "100 Inspiring Hispanic/LatinX Scientists in America" in connection with National Hispanic Heritage Month (http://crosstalk.cell.com/blog/100-inspiring-hispanic-latinx-scientists-in-america).
- Michael Zile, M.D., Distinguished University Professor in the Department of Medicine/Division of Cardiology, was recently recognized with the Governor's Award for Excellence in Science and the VA William S. Middleton Award for Outstanding Achievement in Biomedical Research.



- Prabhakar Baliga, M.D., Chair of the Department of Surgery, was elected to the Board of Governors for the American College of Surgeons as the Surgical Specialty Society Governor from the Southern Surgical Association. He will serve an initial three-year term.
- Reginald Munden, M.D., was selected to serve as the next Chair of the Department of Radiology, (start date of April 1, 2021). He will succeed Philip Costello, M.D., who served for more than 15 years as department chair.
- Several College of Medicine (COM) faculty were recognized with our COM Research Excellence Awards in October. Raymond F. Anton, M.D., Professor of Psychiatry; and co-investigators Patricia Latham, Ph.D.; Sarah Book, M.D.; Michaela Hoffman, Ph.D.; James Prisciandaro, Ph.D.; and Emily Bristol, BA, were recognized for their work and article titled "Efficacy of Gabapentin for the Treatment of Alcohol Use Disorder in Patients With Alcohol Withdrawal Symptoms A Randomized Clinical Trial" published by JAMA Internal Medicine. Vinayak Rohan, M.D., Assistant Professor of Surgery, was recognized for his work and article titled "Virtual Crossmatching in Kidney Transplantation: The Wait is Over" published by the Journal of the American College of Surgeons.
- Amanda K. Giles, OTD, OTR/L, Associate Professor in the Division of Occupational Therapy,
 was selected to receive the American Occupational Therapy Association (AOTA) 2021 Roster of
 Fellows Award- recognizing occupational therapists who have made a significant contribution over
 time to the profession with a measured impact on consumers of occupational therapy services and/or
 members of the Association.
- K. Jackson Thomas, PT, EdD, Professor in the Division of Physical Therapy, was elected to the National Board of Directors for the Alpha Eta Honor Society for a 2-year term.
- Stephanie Armstrong, RN, Ph.D., Assistant Professor, was appointed as Chair of the Healthcare Committee for the S.C. Human Trafficking Task Force.
- Heather Craven, RN, Ph.D., Instructor, was the recipient of the 2020 Academy of Medical Surgical Nursing President's Award.
- Sharon Kozachik, RN, Ph.D., Interim Associate Dean of Academic Affairs, was selected to serve as Chair of the Palliative & End of Life Care Expert Panel for the American Academy of Nursing.
- Dean Linda S. Weglicki, RN, Ph.D., College of Nursing, is serving as one of among 30
 Ambassadors to the Friends of Nursing Research (FNINR), term 2021 2022. FNINR Ambassadors are instrumental in educating Congressional leaders and decision makers about the importance and impact of nursing research on the health and quality of life of citizens of the US and around the world.
- GlaxoSmithKline Distinguished Endowed Chair John Lemasters, Ph.D., was inducted into the National Academy of Inventors (NAI).
- Susan Newman, RN, Ph.D., CRRN, Associate Professor and Assistant Dean of PhD Nursing Science Program, College of Pharmacy, was selected to the Board of Directors for the Nursing division of the Academy of Spinal Cord Injury Professionals.



- Tina Lopez, Ph.D., Associate Professor, College of Nursing, received the 2021 MLK Humanitarian Award, given annually to an individual who makes significant contributions in the areas of diversity, equity, and inclusion on their campus or in the community.
- Michelle Nichols, RN, Ph.D., Assistant Professor, College of Nursing, was elected as President of the Mixed Methods International Research Association. Dr. Nichols is the first nurse scientist and clinician to serve in this position.
- Kathleen Brady, M.D., Ph.D., Vice President for Research, received the Julius Axelrod
 Mentorship Award from the American College of Neuropsychopharmacology. This
 award is presented to an ACNP member who has made an outstanding contribution to
 neuropsychopharmacology by mentoring and developing young scientists into leaders in the field.
- Jakie McGinty, Ph.D., Professor and Director of the Neuroscience Institute, College of Medicine, received the Pioneer Award from the Winter Conference on Brain Research.
- Michael de Arellano, Ph.D., Professor, Psychiatry and Behavioral Medicine, College of Medicine, received the Lifetime Contribution Award for Latinx Mental Health Disparities at the Association for Behavioral and Cognitive Therapies' SIG meeting.
- Benjamin Saunders, Ph.D., Professor, Psychiatry and Behavioral Medicine, College of Medicine, received the Lifetime Achievement Award from the International Society for Traumatic Stress Studies. This award is the highest honor given to an individual who has made great lifetime contributions to the field of traumatic stress.
- Dean Kilpatrick, Ph.D., Professor, Psychiatry and Behavioral Medicine, College of Medicine, received the Outstanding Service Award from the International Society for Traumatic Stress Studies. This award is designed to recognize a member of ISTSS who has made a significant and sustained contribution to ISTSS that has enhanced the Society and helped it achieve its goals.
- Nancy Klauber-DeMore, M.D., Professor, Division of Surgical Oncology, Department of Surgery,
 College of Medicine, was named a 2020 fellow of the National Academy of Inventors.
- Dirk Elston, M.D., Professor and Chair of the Department of Dermatology, College of Medicine, President MUSC Physicians, was appointed as a member of the National Academies' Committee on the Environmental Impact of Currently Marketed Sunscreens and Potential Human Impacts of Changes in Sunscreen Usage.
- Brittany Bryant, DSW, LISW-CP, Assistant Professor, Department of Psychiatry and Behavioral Sciences, Addiction Sciences Division, was one of three scholars in the country to be awarded the prestigious Learning for Early Careers in Addiction & Diversity (LEAD) Fellowship.



- Marvella Ford, Ph.D., Associate Director of Population Sciences and Cancer Disparities at
 MUSC Hollings Cancer Center, and Hollings thoracic oncologist, Nichole Tanner, M.D., recently
 contributed to a set of statements released by the American Thoracic Society to identify gaps
 in care and to offer strategies for ensuring equity in lung cancer screening, improving tobacco
 treatment and breaking down health system, provider and patient barriers to screening.
- Patty Coker-Bolt, Ph.D., OTR/L, FAOTA, COHP Professor, Division of Occupational Therapy,
 Department of Rehabilitation Sciences, received a Fulbright scholarship award to Trinidad and
 Tobago for academic year 2021-2022.
- Craig Velozo, Ph.D., OTR/L, FAOTA, COHP Division Director and Professor of the Division of Occupational Therapy, Department of Rehabilitation Sciences, was awarded the prestigious American Occupational Therapy Association (AOTA) 2021 Eleanor Clarke Slagle Lectureship Award.
- Chris Wisniewski, PharmD, COP Associate Professor Clinical Pharmacy and Outcome Science was selected by the American Association of Colleges of Pharmacy (AACP) for its 2021 Emerging Teaching Scholar Award.
- Cathy Worrall, PharmD, COP Professor and Associate Dean for Student Affairs and Admissions, received the 2021 Phi Lambda Sigma-Procter & Gamble National Leadership Award.
- Robert Stuart, M.D., COM Professor of Medicine, Division of Medical Oncology, received the state's Order of the Palmetto, South Carolina's highest civilian honor.
- Dean Kilpatrick, Ph.D., COM Professor of Psychiatry, was awarded the "Visionary Voice" award from End Violence Against Women International.
- Hermes Florez, M.D., Ph.D., MPH COM, Chair Department of Public Health, was appointed to serve as Chair of the Cooperative Studies Scientific Evaluation Committee in the U.S. Department of Veterans Affairs.

ACADEMICS: EDUCATION



- Construction has begun on the new College of Pharmacy (COP) facility; the College is looking forward to celebrating the groundbreaking of the facility with a virtual event for the MUSC pharmacy family in April 2021.
- College of Health Professions (CHP) students in the online Bachelor of Science in the Healthcare
 Studies (HCS) program created the Accelerated Executive master's in health administration
 (A-EMHA) pathway. This new pathway allows eligible students to fulfill their bachelor's degree
 requirements while completing several graduate-level courses which are waived in their A-EMHA. Both
 degrees are completed online in just three years (eight semesters) with a cost savings of more than
 \$17,000- and one-years' time.
- Francis Marion University (FMU) voluntarily withdrew its accreditation with the Accreditation Review Commission on Education for the Physician Assistant (ARC-PA). In mid-November, CHP's Physician Assistant Studies (PAS) program received approval from the ARC-PA to permanently increase the maximum entering class size from 60 students to 97 students beginning in January 2021. MUSC's PAS program was previously approved to increase its class size starting May 2021. This change in effective date will allow the students from Francis Marion University (FMU) to transfer to MUSC's PAS program in January 2021.
- The Division of Education Innovation and Student Life submitted a total of \$688,782 to University CARES funding Phases I and II, which was held centrally for pay-for-performance bonuses and COVID-19 expenditures.
- MUSC partnered with Claflin University and the College of Health Professions to launch a pilot collaborative URM PA pipeline program entitled Recruitment and Retention of students from a Historically Black College/University (HBCU). The program and others to follow will strengthen URM applicant preparedness for health professions degree programs.
- The Pediatric Prevention Clinic operated by the CARES student-run free medical clinic under the direction of Anita Ramsetty, M.D., has been selected as the first recipient of the Association for Prevention Teaching and Research's Diversity, Equity, and Inclusion Award. This award recognizes a person or organization whose work systematically improves the health and well-being of under-resourced and vulnerable populations.
- The MUSC College of Medicine had a successful residency match on March 19, 2021 with 97% of 177 senior applicants securing a residency position. A total of 59 (33.3%) students will remain in S.C. to complete their residency training (40 at MUSC). Of the specialties in which students will be pursuing their training, Categorical Internal Medicine led the way with the highest number of students at 33 (18.6% of the graduating class). Other popular specialties included Family Medicine (12.4%), Emergency Medicine (9.0%), Pediatrics (8.5%), Anesthesiology (6.2%), and Orthopedic Surgery (6.2%).
- College of Pharmacy had a 77% match rate, and the national average match rate was 63%.
- College of Health Profession's master's program in speech-language pathology program approved by The Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA).
- COM LCME Reaccreditation Site Visit took place in May 2021. More than 120 representatives of the College of Medicine participated in meetings and interviews with our LCME site visit team. We await the preliminary report from the LCME this fall.

MUSC ENTERPRISE



- Effective October 2021 MUSC launched the enterprise wide MUSC Office of Equity, which will
 fully integrate the academic and health care delivery dimensions of our ongoing institutional
 diversity, equity, and inclusion (DEI) work. This new office is led by Interim Chief Willette BurnhamWilliams, Ph.D.
- For the fourth consecutive year MUSC has been selected as one of 46 institutions of higher education to receive the 2020 Health Professions Higher Education Excellence in Diversity (HEED) Award from INSIGHT Into Diversity magazine, the oldest and largest diversity publication in higher education.
- MUSC ranked 3rd nationally for innovation impact among peer institutions according to a new report released by the George W. Bush Center and Opus Faveo Innovation Development.
- The MUSC-invented, Guardian Needle, received FDA approval and hit the market in October. Invented by MUSC innovators Jonathan Edwards, M.D., and Jessica Barley, Ph.D., the product prevents needle-stick injuries during intraoperative monitoring.
- MUSC has joined the pediatric digital technology accelerator KidsX. The accelerator will pair MUSC with early-stage companies developing products addressing critical needs for the children's hospital.
- The Waring Historical Library team launched the COVID-19 Archives Project to document the MUSC community's response to the pandemic. https://musc.libguides.com/waring/services/reference/musc-covid19-archive
- The Waring Historical Library acquired the papers of Edward Frost Parker to document the
 history of the university in 1890-1910 during a time when medical education across the country was
 being scrutinized and reforms instituted. The records fill a gap in the collection on the history of the
 university at this time.
- The Waring Historical Library team collaborated with a multidisciplinary group of MUSC personnel from across the University to create a comprehensive Bicentennial Celebration Plan to be reviewed and revised by the leadership of the institution and implement leading to 2024.
- The Digital Strategies and Innovation (DSI) group worked with the Department of Anesthesia and Peri-operative Medicine to create face shields for clinicians working on the front lines. The DSI group created the prototype and 3D printed 500 face shields for the clinicians.
- The Beemok Family Foundation has made a three-year commitment totaling \$2,250,000 to underwrite the Lowvelo fundraising event for MUSC Hollings Cancer Center.
- Alfred and Janet Lombardi have made a planned gift of \$2 million to MUSC. Of this amount, \$1 million is dedicated to Storm Eye Institute's general fund and \$1 million to MUSC's general fund.
- The BabySTRONG received FDA Breakthrough Device Designation. The device, invented by Doe Jenkins, M.D., Bashar Badran, Ph.D., and Mark George, M.D., is a neonatal feeding aid for premature and at-risk infants who present feeding issues in their feeding efforts.

MUSC ENTERPRISE



- The MUSC COVID-19 Antibody Test developed by the Center for Cellular Therapy will be offered in India in partnership with DNA Xperts.
- Ignis Health exclusively licensed software application of the Telehealth Service Implementation Model (TSIM) which was developed by the MUSC Telehealth Team including Shawn Valenta, Jim McElligott, M.D., Tasia Walsh, Kathryn Cristaldi, M.D., Dee Ford, M.D., Ellen Debenham, Emily Warr, Megan Glanville, and Emily Sederstrom.
- Derek Brown was appointed to the role of Associate Dean for Development in the College
 of Medicine effective February 1, 2021. A South Carolina native, Derek has more than 18 years'
 experience in health system and academic medicine fundraising at several institutions including most
 recently Vanderbilt University and Dartmouth.
- Craig Lockhart, M.D., accepted the position of Chief of the Division of Hematology/Oncology in the Department of Medicine (effective date of April 1, 2021). Dr. Lockhart will also serve as Associate Director of Clinical Sciences for the Hollings Cancer Center.
- The winners of the President's 2020 Values in Action (VIA) Award are listed below by the value in which they were nominated:
 - o Compassion: Carolyn Page, MSM, Assistant Dean of Student Services, College of Nursing
 - o Respect: Tonya Hazelton, TACHL Program Coordinator II, College of Nursing
 - o **Innovation: Satish Nadig, M.D., Ph.D.,** Associate Professor, Division of Transplant Surgery, Department of Surgery, College of Medicine
 - o Collaboration: Iggy Pla, Director of Hospital Facilities Maintenance, MUSC Enterprise
 - o Integrity: Sorin Teich, D.M.D., Associate Dean of Clinical Affairs, College of Dental Medicine
- This year we had two individuals that were nominated for the VIA award that qualified for the President's Impact Award for their tremendous, enterprise-wide contributions with the COVID-19 pandemic. Cassandra Salgado, M.D., Professor of Medicine and Public Health, Division Director, Infectious Diseases, Hospital Epidemiologist, and Michael Sweat, Ph.D., Professor of Psychiatry and Behavioral Sciences, Director of the MUSC Center for Global Health, were the winners of this inaugural award.
- The Enterprise Resource Planning (ERP) cloud-based platform contract was awarded to Workday.
- Public Safety Officer Lieutenant Patrick Kelly received the Life Saving Award for preventing two individual suicide attempts in March and June 2021.
- A total of 15,685 (90.76%) employees met or exceeded the 4-hour diversity, equity, and
 inclusion education requirement for FY2021 (October 1, 2020 June 30, 2021). This is the first time
 in MUSC's history that every employee across the enterprise was required to complete 4 hours of
 diversity, equity, and inclusion training and education.



COVID-19 RESPONSE

- Latest COVID-19 key performance indicators across MUSC Health (all 3 divisions as of June 30, 2021):
 - o 427,370 COVID PCR tests performed
 - o 18,744 COVID antibody tests performed
 - o 36,125 COVID + patients identified
 - o 143,647 individuals vaccinated
 - o 273,460 shots administered
 - o 300+ unique testing/vaccination locations throughout the state
- Secured over \$90M from the State Legislature to distribute COVID-19 tests and vaccines across the state; in many areas where MUSC has never had a prior presence.
- Our Information Solutions Regulatory team contributed to our receiving \$937,803 in care
 management fees through PCMH (patient centered medical home) which is an increase of around
 \$75,000 from 2019. Additionally through the Medicaid Promoting Interoperability their work contributed
 to bringing in \$127,500 from 2020 attestations.
- Stewarded \$40M to MUSC Health from the state Cares Act system.
- Rolled out paid time off (PTO) COVID-19 give back program to MUSC Health care team members.
- MUSC's Back2Business effort to assist South Carolina businesses, schools, municipalities, and others
 to safely manage through and recover from the COVID-19 pandemic has been highly successful
 assisting hundreds of organizations across the state.

OPERATIONS

- MUSC Health Charleston
 - o MUSC Health Charleston, US News and World Report 2021 rankings #1 in state
 - o In the U.S. News & World Report rankings of "America's Best Children's Hospitals" released in June, the leading ranked specialties for Shawn Jenkins Children's Hospital include; # 12 for cardiology and heart surgery, # 30 for nephrology, # 42 for gastroenterology and GI surgery, and # 44 for cancer. Shawn Jenkins Children's Hospital is the only institution in South Carolina to be ranked among U.S. News & World Report's 2021-22 edition of America's Best Children's Hospitals. In the regional rankings (new this year), MUSC Shawn Jenkins tied at #12 in the Southeast region.
 - Received the ELSO (Extracorporeal Life Support Organization) Center of Excellence Platinum
 Award, which is the highest distinction within the ESLO organization.
 - o Official notice from the Joint Commission on re-certification as a Comprehensive Stroke Center
 - o Joint Commission advanced recertification of hip and knee replacement program.
 - Opened the dedicated Burn Unit.



- O Vizient initiative is on track to save more than \$2,000,000 from budget this year.
- o Kindra Taylor was Nurse of the Year from the neonatal intensive care unit.
- Pediatric ECMO (extracorporeal membrane oxygenation) Program received the quality designation, PLATINUM, by ELSO Center of Excellence.
- Center for International Blood and Marrow Transplant Research recognized MUSC BMT in top 10% survival achieved adult and pediatrics.
- o Successful adult trauma program American College of Surgeons reverification.
- o Vizient ambulatory quality ranking improved to 9th in country.
- Pediatric Critical Care Unit was awarded the Society of Critical Care Medicine and American Association of Critical Care Nurses ICU Design Citation Award.

Ambulatory Expansion:

- o **Opened Chuck Dawley Medical Park site ambulatory clinics on December 9, 2020.** This includes ambulatory surgery center, diagnostic imaging, PT/OT, and clinics. Services include orthopedics, PM&R, pain management, hand surgery, and ophthalmology.
- o **Opened MUSC Health Nexton Medical Park** which includes specialty clinics, such as cardiology, GI surgery, infectious disease, neurology, nephrology, and rheumatology.
- o **Expanded the MUSC Health Evelyn Trammell Institute for Voice and Swallowing** (ETIVS) at MUSC Health East. This is the first and only Center in South Carolina to provide comprehensive evaluation and management of voice, airway, and swallowing concerns for both adults and children.
- o **Opened MUSC Health Center Space** which provides novel therapeutic treatment for anxiety, depression, PTSD, and trauma through its innovative use of Ketamine.
- Expansion of Robotic Fleet with 5 new Xi robots consoles. In the first two weeks, completed 54 robotic procedures which is 200% of baseline robotic volumes.

• Acute / Critical / Trauma:

o ECMO team completed the first successful ECMO transport from Rock Hill, SC.

Children's & Women's

o New Center of Excellence (COE) recognition: Blue Distinction Centers for Transplants (BDCT) for peds Bone Marrow Transplant (BMT), Cigna COE for Adult Congenital Heart Disease (ACHD).



• Transplant:

- o MUSC Kidney Transplant program was nationally recognized for the high-volume utilization of telemedicine for kidney transplant evaluations by the virtual platform Doxy.me. Vinayak Rohan, M.D., the surgical director for kidney transplant at MUSC, was featured during the plenary session at the Southern Surgical Association annual meeting for this telehealth experience.
- o David Koch, M.D., MSCR, and Jared White, M.D., performed the first liver transplant in South Carolina for a patient with cholangiocarcinoma.
- o Barry Gibney, D.O., successfully performed the first bilateral lung transplant for COVID-19 in the Carolinas after 80 days on ECMO.

Heart and Vascular:

- o Highest volume CT surgery program in the state of South Carolina
- o Three additional vascular surgeons recruited within 18 months (1.5 for MUSC Charleston, 1.5 for Tidelands)
- o Performance of 1,000th TAVR by MUSC Structural Heart Program
- o Performance in last academic year of over 200 ventricular tachycardia ablations, highest volume program in the Southeast and now a "destination referral center" for the entire Southeast

MUSC HEALTH - FLORENCE

- MUSC Health broke ground on a new hospital that will replace the existing Williamsburg and Lake
 City Hospitals. The new hospital will open in early 2023 and will become part of the MUSC Health
 Florence Division.
- Re-accredited by Joint Commission for their Joint Replacement (Hip and Knee) program zero deficiencies
- Hope Health is the largest primary care provider in greater Florence. For years there was an issue with sending patients to MUSC Florence due to inability to pass and receive patient data. That is now fully functional and is a huge win for the health system. The team is also working on referrals coming from Hope Health to streamline the process.
- Went live with the mechanical thrombectomy coverage in October.
- Opened new service as part of current Women's Centers Women's Mental Health services.
- Leapfrog fall score release: MUSC Florence retained an A.
- Press Ganey Patient Experience scores have increased from the 33rd percentile to the 75th percentile.
- Significant reduction in travel nurses in past quarter as additional permanent nurses are recruited.



- Growth Initiatives:
 - o New Urologist, Karthik Tanneru, MBBS, started July 6, 2021.
 - Robotics surgery program at Florence launched with great success under direction of our Robotics Surgical Director, Hatem Abdallah, M.D.
 - Full time Thrombectomy coverage will begin in August with the arrival of our neuro-interventionalist, Jaydevsinh Dolia, M.D.

MUSC HEALTH – LANCASTER

- Leapfrog fall score release: Lancaster moved from a C to a B.
- MUSC Health Lancaster Division and the Transplant ICCE continue to advance plans to establish renal transplant services at MUSC Health Lancaster Medical Center. Prince Mohan Anand, M.D. will be joining as program medical director.
- New orthopedists have been hired in both Chester and Lancaster markets and the division is actively establishing athletic training programs at the 7 high schools in Chester and Lancaster counites.
- **Began an in-person intensivist program within its ICUs.** Paras Malhotra, MBBS, will service as the program's medical director, joining MUSC Health from Presbyterian Health Services.

MUSC HEALTH - MIDLANDS

13 Provider "Town Hall" meetings held during week of July 6th. These sessions were divided
into presentations geared for employed and independent providers in the market. All were very well
attended, and Physicians and APPs were highly engaged and appreciative of the MUSC presence in the
market early in the relationship.

MUSC HEALTH- UPSTATE

- MUSC Health created a Management Services Organization (MSO, ONYX) in the Upstate with the intent of supporting the development of an upstate GME consortium and medical group. The MSO is a joint venture with an existing, independent 60 provider primary care group named Tribe513.
- Opened Grace Internal Medicine through a professional service agreement with Leon Buffaloe,
 M.D. This internal medicine practice is owned by MUSC and will utilize services from MUSC's new medical services organization, ONYX.



MUSC PHYSICIANS

- Strong MUSCP clinical performance in June. For the month of June 2021, MUSCP's professional charges were 4% above budget; FYTD for 2021, professional charges are 3% above budget.
- Through May 2021, we have a projected 1,427,799 billed encounters (167,901 new patient encounters); this is a positive variance of 105,232 in FY21 for projected billed encounters (18,720 new patient encounters).
- Exercise Is Medicine pilot project launched using Carelink. This model allows MUSC Primary Care physicians to refer patients to Exercise Physiologists at the Wellness Center and expands the ways our providers can guide their patients into better health and wellness.
- MUSCP became 30 years old on June 3, 2021 (certificate of incorporation, June 3, 1991).

PARTNERSHIPS / AFFILIATIONS / COLLABORATIONS

- MUSC Health formalized a partnership with Tidelands Health deepening a pre-existing clinical affiliation. The enhanced relationship enables MUSC to work closely with Tidelands to create access to specialty services along the coast from Georgetown to the NC state line. It also facilitates academic and research opportunities within the region.
- MUSC Health formalized a partnership with Encompass Health to add inpatient rehabilitation services to the Charleston Division. The joint venture fills a care continuum void in the Charleston market and creates academic rotation and telehealth opportunities within all seven Encompass Health hospitals across South Carolina.
- MUSC Health executed an inter-agency agreement with the South Carolina Department of Corrections to provide acute care services at MUSC Health Chester Medical Center. Additional statements of work are expected to support the Department's pharmacy and behavior health needs.
- MUSC partnered with the Greenville-based lab testing company, Precision Genetics, to establish
 increased capacity for COVID-19 testing for South Carolinians. This includes servicing long-term care
 facilities to ensure access to testing for our most vulnerable populations.
- MUSC celebrated the 2-year anniversaries of the strategic partnerships with industry giants, Siemens Healthineers and Medtronic.
 - o The Siemens partnership has realized nearly \$3.5 million in value for MUSC through the implementation of performance innovation and clinical efficiency projects.
 - o The Medtronic partnership is advancing value-based care by giving providers access to data about their patients with respiratory compromise, heart failure, and vascular disease.
- MUSC's partnership with Synaptive, a Canadian-based medical technology company, enabled the MUSC Shawn Jenkins Children's Hospital to become the first pediatric hospital in North America to clinically deploy the Modus V 3D robotic digital microscopes.



- MUSC collaborated with Clemson, College of Charleston, and three of SC's historically Black colleges and universities (SC State, Claflin, and Benedict) to deploy COVID-19 testing and/or vaccination to their campuses and surrounding communities.
- MUSC and Clemson expanded their collaboration to include a Research Alliance initiative to work together on health care artificial intelligence.
- MUSC Health continued its work with Hampton Regional Medical Center and SC DHHS to "reinvent" rural healthcare in SC. Specifically, the effort leverages advanced practitioners, MUSC's
 telehealth expertise, and physician specialists to extend specialty services into the Hampton community.
 FY21 achievements include: Joint Commission Acute Stroke Ready Accreditation, Tele-ICU, TeleInfectious Disease, Tele-Endocrinology, and Tele-Psychiatry. Pediatrics and oncology coverage are in
 development and planned in FY22.
- MUSC Health continues to work collaboratively with its Affiliate Network and Regional Hospitals to fill gaps in local care. These efforts have included development of an interventional stroke program in Florence, placement of a vascular surgeon within Beaufort Memorial, placement of a vascular surgeon within Tideland Health, placement of an orthopedic oncologist within Lexington Medical Center, co-recruitment and placement of a cancer navigator in Hartsville with Carolina Pines Hospital, and expansion of specialty timeshare clinics across the state to now include: Bluffton, Murrells Inlet, Florence, Lancaster, and Greenville.
- In partnership with the Beemok Foundation, MUSC opened Modern Minds, an adult mental health and wellness clinic that offers a one-stop holistic approach to mental, emotional, and physical wellness.



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